

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

| | |
|--------------------------------|--|
| 1.1. Product identifier | |
| Code: | OROTHERAPY 1 |
| Product name | Orotherapy all shades except 1.0 - 4.0 |
| | |

| | |
|---|-------------------|
| 1.2. Relevant identified uses of the substance or mixture and uses advised against | |
| Intended use | Cream hair colour |

| | |
|--|--|
| 1.3. Details of the supplier of the safety data sheet | |
| Name | ONETECH srl |
| Full address | Via del Palù nr. 5/B |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0) 499988990 |
| | Fax.: +39(0) 499988999 |
| e-mail address of the competent person responsible for the Safety Data Sheet | info@onetechnaly.com |
| Product distribution by | ONETECH srl |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

| | |
|--|---|
| 1.4. Emergency telephone number | |
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |

SECTION 2. Hazards identification.

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|---|
| 2.1. Classification of the substance or mixture. |
|---|

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

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|--|
| 2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments. |
|--|

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |

| | | | |
|---|------------|--|---|
| EC. - | | | |
| INDEX. - | | | |
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |

| | | | |
|----------------------------------|-------------|--|---|
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |

| | |
|-----------|--|
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

| ETHANOLAMINE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|-------------|----------------|---------------|------------------|
| Threshold Limit Value. | | | | | | | | |
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|-------------|----------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |

| | |
|--|-------------------|
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL
LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL
LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
LC50 - for Fish.
86,2 mg/l/96h Brachidanio rerio
EC50 - for Crustacea.
11,12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h Selenastrum capricornutum

TOLUENE 2,5-DIAMINE SULFATE
LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL
LC50 - for Fish.
31,6 mg/l/96h Leuciscus idus melanotus
EC50 - for Crustacea.
< 1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h Chlorella pyrenoidosa

LAURETH-3
LC50 - for Fish.
> 1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea.
> 1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h Scenedesmus subspicatus

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h Ceriodaphnia Dubia

LC10 for Fish.

40613 mg/l/96h Oncorhynchus mykiss

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h Carassius auratus

EC50 - for Crustacea.

65 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h Selenastrum capricornutum

Chronic NOEC for Fish.

1,2 mg/l Oryzias latipes

Chronic NOEC for Crustacea.

0,85 mg/l Daphnia magna

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE

NOT rapidly biodegradable.

RESORCINOL

Rapidly biodegradable.

p-AMINOPHENOL

Biodegradability: Information not available.

p-AMINO-o-CRESOLO

NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

NOT rapidly biodegradable.

4-AMINO-M-CRESOL

NOT rapidly biodegradable.

LAURETH-3

Rapidly biodegradable.

PROPYLENE GLYCOL

Biodegradability: Information not available.

ETHANOLAMINE

Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

9ii

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |

| | | |
|--------|--|--|
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| | | |

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

| | | |
|-----------|---|--|
| | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |

| | | |
|---------------------|--|--|
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

| 1.1. Product identifier | |
|-------------------------|----------------------|
| Code: | OROTHERAPY |
| Product name | Orotherapy 1.0 - 4.0 |
| | |

| 1.2. Relevant identified uses of the substance or mixture and uses advised against | |
|--|-------------------|
| Intended use | Cream hair colour |

| 1.3. Details of the supplier of the safety data sheet | |
|--|--|
| Name | ONETECH srl |
| Full address | Via del Palù nr. 5/B |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0) 499988990 |
| | Fax.: +39(0) 499988999 |
| e-mail address of the competent person responsible for the Safety Data Sheet | info@onetechitaly.com |
| Product distribution by | ONETECH srl |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

| 1.4. Emergency telephone number | |
|---------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |

SECTION 2. Hazards identification.

| 2.1. Classification of the substance or mixture. |
|--|
|--|

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

| 2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments. |
|---|
|---|

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| STOT SE 2 | H371 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H371 | May cause damage to organs. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: 2,4-DIAMINOPHENOXYETHANOL HCL |

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|-------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |

| | |
|------------------|--|
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | RESORCINOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 4 - 6 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|------------------------------|------------|--------------------------|---|
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 1 - 1,5 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 1 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |

| | |
|-----------|--|
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

| ETHANOLAMINE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|-------------|----------------|---------------|------------------|
| Threshold Limit Value. | | | | | | | | |
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|-------------|----------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |

| | |
|--|-------------------|
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

This product may cause irreversible, non-lethal damages after a single exposure by inhalation, cutaneous absorption and ingestion.

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.

1,2 mg/l *Oryzias latipes*

Chronic NOEC for Crustacea.

0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

TOLUENE 2,5-DIAMINE SULFATE

NOT rapidly biodegradable.

RESORCINOL

Rapidly biodegradable.

LAURETH-3

Rapidly biodegradable.

PROPYLENE GLYCOL

Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category

9ii

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product

Point.

3

Substances in Candidate List (Art. 59 REACH):

None.

Substances subject to authorisation (Annex XIV REACH):

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|----------------------|--|--|
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |

| | | |
|--------------------------|--|--|
| Skin Sens. 1A | Skin sensitization, category 1A | |
| STOT SE 2 | Specific target organ toxicity - single exposure, category 2 | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H371 | May cause damage to organs. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| | | |

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

| | | |
|------------------|---|--|
| | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |

| | | |
|---------------------|--|--|
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86353 COLOR KERATIN ORO PURO 6.31 BIONDO SCUROSABBIA 100 ML WITH A |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86354 COLOR KERATIN ORO PURO 7.31 BIONDOSABBIA 100 ML WITH ARGAN O |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveneni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86355 COLOR KERATIN ORO PURO 8.31 BIONDOCHIARO SABBIA 100 ML WITH |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86356 COLOR KERATIN ORO PURO 9.31 BIONDOCHIARISSIMO SABBIA 100 ML |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY |
| Product name | FACTL86424 COLOR KERATIN ORO PURO 1.0 NERO100 ML WITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| STOT SE 2 | H371 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

Signal words:

Danger

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H371 | May cause damage to organs. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

2,4-DIAMINOPHENOXYETHANOL HCL

May produce an allergic reaction.

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |

| | |
|------------------|--|
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | RESORCINOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 4 - 6 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |

| | | | |
|------------------------------|------------|--------------------------|---|
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 1 - 1,5 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 1 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

Threshold Limit Value.

| Type | Country | TWA/8h | | STEL/15min | | | | |
|---|-----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | | Effects on workers | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|---|-----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | | Effects on workers | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |
| Vapour density | Not available. |

| | |
|--|-------------------|
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using

the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

This product may cause irreversible, non-lethal damages after a single exposure by inhalation, cutaneous absorption and ingestion.

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it has negative effects on the aquatic environment.

12.1. Toxicity.

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3
LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL
EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE
LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*
Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| STOT SE 2 | Specific target organ toxicity - single exposure, category 2 | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |

| | | |
|---|--|--|
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H371 | May cause damage to organs. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| | | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86425 COLOR KERATIN ORO PURO 3.0 CASTANO SCURO100 ML WITH ARGAN OI |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY |
| Product name | FACTL86426 COLOR KERATIN ORO PURO 4.0 CASTANO100 ML WITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person | |
| responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| STOT SE 2 | H371 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

Signal words:

Danger

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H371 | May cause damage to organs. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

2,4-DIAMINOPHENOXYETHANOL HCL

May produce an allergic reaction.

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |

| | |
|------------------|--|
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | RESORCINOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 4 - 6 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |

| | | | |
|------------------------------|------------|--------------------------|---|
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 1 - 1,5 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 1 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

Threshold Limit Value.

| Type | Country | TWA/8h | | STEL/15min | | | | |
|---|-----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | | Effects on workers | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|---|-----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | | Effects on workers | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |
| Vapour density | Not available. |

| | |
|--|-------------------|
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using

the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

This product may cause irreversible, non-lethal damages after a single exposure by inhalation, cutaneous absorption and ingestion.

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it has negative effects on the aquatic environment.

12.1. Toxicity.

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3
LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL
EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE
LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*
Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|-------------------|--|--|
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| STOT SE 2 | Specific target organ toxicity - single exposure, category 2 | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |

| | | |
|---|--|--|
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H371 | May cause damage to organs. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| | | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86427 COLOR KERATIN OROPURO 5.0 CASTANO CHIARO100 ML WITH ARGAN OI |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l Oryzias latipes
Chronic NOEC for Crustacea.
0,85 mg/l Daphnia magna

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86428 COLOR KERATIN ORO PURO 6.0 BIONDO SCURO100 ML WITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86429 COLOR KERATIN ORO PURO 7.0 BIONDO100 ML WITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86430 COLOR KERATIN ORO PURO 8.0 BIONDO CHIARO100 ML WITH ARGAN OI |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86431 COLOR KERATIN ORO PURO 9.0 BIONDOCHIARISSIMO 100 ML WITH ARG |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|------------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic systemic | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|------------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic systemic | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86432 COLOR KERATIN ORO PURO 10.0 BIONDOPLATINO NATURALE 100 ML WI |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86433 COLOR KERATIN ORO PURO 4.2 CASTANOVIOLA 100 ML WITH ARGAN OI |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE
LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL
LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3
LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL
EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE
LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86434 COLOR KERATIN ORO PURO 5.2 CASTANOCHIARO VIOLA 100 ML WITH A |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86435 COLOR KERATIN ORO PURO 1.10 NERO BLU100 ML WITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person | |
| responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86436 COLOR KERATIN ORO PURO 5.1 CASTANOCHIARO CENERE 100 ML WITH |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86437 COLOR KERATIN ORO PURO 6.1 BIONDO SCUROCENERE 100 ML WITH AR |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86438 COLOR KERATIN ORO PURO 7.1 BIONDO CENERE100 ML WITH ARGAN OI |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86439 COLOR KERATIN ORO PURO 8.1 BIONDO CHIAROCENERE 100 ML WITH A |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86440 COLOR KERATIN ORO PURO 9.1 BIONDOCHIARISSIMO CENERE 100 ML W |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86441 COLOR KERATIN ORO PURO 10.1 BIONDOPLATINO CENERE 100 ML WITH |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86442 COLOR KERATIN ORO PURO 4.14 CACAO100 ML WITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86443 COLOR KERATIN ORO PURO 5.14 CIOCCOLATOEXTRA FONDENTE 100 ML |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86444 COLOR KERATIN ORO PURO 6.14 CIOCCOLATOFONDENTE 100 ML WITH A |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86445 COLOR KERATIN ORO PURO 5.3 CASTANOCHIARO DORATO 100 ML WITH |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86446 COLOR KERATIN ORO PURO 6.3 BIONDOSCURO DORATO 100 ML WITH AR |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86447 COLOR KERATIN ORO PURO 7.3 BIONDODORATO 100 ML WITH ARGAN OI |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86448 COLOR KERATIN ORO PURO 8.3 BIONDO CHIARODORATO 100 ML WITH A |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveneni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86449 COLOR KERATIN ORO PURO 9.3 BIONDOCHIARISSIMO DORATO 100 ML W |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86450 COLOR KERATIN ORO PURO 10.3 BIONDOPLATINO DORATO 100 ML WITH |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86451 COLOR KERATIN ORO PURO 6.46 BIONDOSCURO RAME ROSSO 100 ML WI |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86452 COLOR KERATIN ORO PURO 7.4 BIONDORAME 100 ML WITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveneni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86453 COLOR KERATIN ORO PURO 4.5 CASTANOMOGANO 100 ML WITH ARGAN O |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86454 COLOR KERATIN ORO PURO 5.5 CASTANOCHIARO MOGANO 100 ML WITH |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86455 COLOR KERATIN ORO PURO 5.6 CASTANOCHIARO ROSSO 100 ML WITH A |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|-------------|----------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | | |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|-------------|----------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | | |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86456 COLOR KERATIN ORO PURO 6.6 BIONDOSCURO ROSSO 100 ML WITH ARG |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86457 COLOR KERATIN ORO PURO 10.0 EXTRABIONDO PLAT. EXTRA 100 ML W |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86458 COLOR KERATIN ORO PURO 10.1 EXTRA BIONDOPLATINO CEN. EXTRA 1 |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86460 COLOR KERATIN ORO PURO 10.3 EXTRA BIONDOPLAT.DORATO EXTRA 1 |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | | |
|---|--|--|--|
| H315 | Causes skin irritation. | | |
| H335 | May cause respiratory irritation. | | |
| H317 | May cause an allergic skin reaction. | | |
| H400 | Very toxic to aquatic life. | | |
| H410 | Very toxic to aquatic life with long lasting effects. | | |
| H411 | Toxic to aquatic life with long lasting effects. | | |
| H412 | Harmful to aquatic life with long lasting effects. | | |
| EUH031 | Contact with acids liberates toxic gas. | | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | | |
| R 7 | MAY CAUSE FIRE. | | |
| R20 | HARMFUL BY INHALATION. | | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | | |
| R22 | HARMFUL IF SWALLOWED. | | |
| R25 | TOXIC IF SWALLOWED. | | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | | |
| R34 | CAUSES BURNS. | | |
| R36 | IRRITATING TO EYES. | | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | | |
| R36/38 | IRRITATING TO EYES AND SKIN. | | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | | |
| R38 | IRRITATING TO SKIN. | | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | | |
| Muta. Cat. 3 | Mutagenicity, category 3. | | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86461 COLOR KERATIN ORO PURO 11.0 SUPER BIONDOPLATINO 100 ML WITH |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86462 COLOR KERATIN ORO PURO 11.1 SUPER BIONDOPLATINO CENERE 100 M |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86463 COLOR KERATIN ORO PURO 11.7 SUPER BIONDOPLATINO IRISE' 100 M |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86501 COLOR KERATIN ORO PURO 6.13 BIONDO SCUROBEIGE 100 ML WITH AR |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86502 COLOR KERATIN ORO PURO 7.13 BIONDO BEIGE100 ML WITH ARGAN OI |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86503 COLOR KERATIN ORO PURO 8.13 BIONDOCHIARO BEIGE 100 ML WITH A |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|------------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic systemic | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|------------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic systemic | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86504 COLOR KERATIN ORO PURO 9.13 BIONDOCHIARISSIMO BEIGE 100 ML W |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|---|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|---|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86507 CREMA COL.COLOR KERATIN NUANCE RESIDUE100 ML |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86602 COLOR KERATIN ORO PURO 5.606 CASTANOCHIARO ROSSO CALDO 100 M |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86603 COLOR KERATIN ORO PURO 6.606 BIONDOSCURO ROSSO CALDO 100 ML |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86604 COLOR KERATIN ORO PURO 7.606 BIONDOROSSO CALDO 100 ML WITH |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86605 COLOR KERATIN ORO PURO 7.14 NOCCIOLA100 ML WITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86606 COLOR KERATIN ORO PURO 10.13EXTRA BIONDOPLAT. BEIGE EXTRA 10 |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|-------------|----------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|-------------|----------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86607 COLOR KERATIN ORO PURO BLU 100 MLWITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86608 COLOR KERATIN ORO PURO ROSSO 100 MLWITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86609 COLOR KERATIN ORO PURO ARGENTO 100 MLWITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE
LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL
LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3
LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL
EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE
LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86610 COLOR KERATIN ORO PURO VIOLA 100 MLWITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86803 COLOR KERATIN ORO PURO 5.00 CASTANOCHIARO INTENSO 100 ML WIT |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86804 COLOR KERATIN ORO PURO 6.00 BIONDO SCUROINTENSO 100 ML WITH |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACT86805 COLOR KERATIN ORO PURO 7.00 BIONDOINTENSO 100 ML WITH ARGAN |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86806 COLOR KERATIN ORO PURO 8.00 BIONDOCHIARO INTENSO 100 ML WITH |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86807 COLOR KERATIN ORO PURO 9.00 BIONDOCHIARISS. INTENSO 100 ML W |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86808 COLOR KERATIN ORO PURO 10.00 BIONDOPLATINO INTENSO 100 ML WI |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Code: | OROTHERAPY 1 |
| Product name | FACTL86810 COLOR KERATIN ORO PURO 8.14 GIANDUIA100 ML WITH ARGAN OIL |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3
LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL
LD50 (Oral). > 20000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.
86,2 mg/l/96h *Brachidanio rerio*
EC50 - for Crustacea.
11,12 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.
0,36 mg/l
EC50 - for Crustacea.
0,5 mg/l
EC50 - for Algae / Aquatic Plants.
0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.
31,6 mg/l/96h *Leuciscus idus melanotus*
EC50 - for Crustacea.
< 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.
> 1 mg/l/96h *Brachydanio rerio*
EC50 - for Crustacea.
> 1 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.
18340 mg/l/48h *Ceriodaphnia Dubia*
LC10 for Fish.
40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.
170 mg/l/96h *Carassius auratus*
EC50 - for Crustacea.
65 mg/l/48h *Daphnia magna*
EC50 - for Algae / Aquatic Plants.
2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category.

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86811 COLOR KERATIN ORO PURO 8.4 BIONDO CHIARORAME 100 ML WITH ARG |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---|
| Code: | OROTHERAPY 1 |
| Product name | FACLT86812 COLOR KERATIN ORO PURO 6.5 BIONDO SCUROMOGANO 100 ML WITH AR |
| | |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------|--------------|
| Intended use | cosmetic use |
|--------------|--------------|

1.3. Details of the supplier of the safety data sheet

| | |
|--|--|
| Name | PETTENON COSMETICS s.p.a. |
| Full address | Via del Palù nr. 7/D |
| District and Country | 35018 San Martino di Lupari (PD) |
| | ITALIA |
| | Tel.: +39(0)4999888 |
| | Fax.: +39(0) 049998809 |
| e-mail address of the competent person responsible for the Safety Data Sheet | safetydoc@pettenon.it |
| Product distribution by | PETTENON COSMETICS s.p.a. |
| Australian distribution | Fanola Australia www.fanola.com.au Ph: 1300 FANOLA 30-32 Garner Place Ingleburn NSW 2565 |

1.4. Emergency telephone number

| | |
|-------------------------------|---|
| For urgent inquiries refer to | 02 66101029 Centro Antiveleni di Milano |
|-------------------------------|---|

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1A | H317 |
| Aquatic Chronic 2 | H411 |

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

Xi-N

R phrases:

31-43-51/53

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

| | |
|---------------|--------|
| Signal words: | Danger |
|---------------|--------|

Hazard statements:

| | |
|---------------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH208 | Contains: |

4-AMINO-M-CRESOL, 2,6-DIHYDROXYETHYLAMINOTOLUENE, RESORCINOL

| | |
|--|-----------------------------------|
| | May produce an allergic reaction. |
|--|-----------------------------------|

Precautionary statements:

| | |
|------------------|--|
| P264 | Wash . . . thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / protective clothing / eye protection / face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| | |

| | |
|------------------|--|
| Contains: | ETHANOLAMINE |
| | LAURETH-3 |
| | 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE |
| | p-AMINO-o-CRESOLO |
| | N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE |
| | 2,4-DIAMINOPHENOXYETHANOL HCL |
| | 5-AMINO-6-CHLORO-o-CRESOL |
| | TOLUENE 2,5-DIAMINE SULFATE |

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

| Identification. | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP). |
|------------------------------------|-----------|------------------------------------|--|
| ETHANOLAMINE | | | |
| CAS. 141-43-5 | 8 - 9 | C R34, Xn R20/21/22 | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1A H314, STOT SE 3 H335, Aquatic Chronic 3 H412 |
| EC. 205-483-3 | | | |
| INDEX. 603-030-00-8 | | | |
| Reg. no. 01-2119486455-28-0001 | | | |
| LAURETH-3 | | | |
| CAS. 68439-50-9 | 5 - 6 | Xi R41, N R50 | Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1 |
| EC. - | | | |
| INDEX. - | | | |
| TOLUENE 2,5-DIAMINE SULFATE | | | |
| CAS. 615-50-9 | 0,048 - 4 | T R25, Xn R20/21, Xi R43, N R50/53 | Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 210-431-8 | | | |
| INDEX. 612-030-00-7 | | | |
| Cocamidopropyl Betaine | | | |
| CAS. 61789-40-0 | 2 - 2,5 | Xi R41 | Eye Dam. 1 H318 |
| EC. - | | | |
| INDEX. - | | | |

| | | | |
|---|------------|--|---|
| 2,4-DIAMINOPHENOXYETHANOL HCL | | | |
| CAS. 66422-95-5 | 1 - 2,5 | Xn R22, Xi R36/37, Xi R43 | Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1 H317 |
| EC. - | | | |
| INDEX. - | | | |
| OCTYLDODECANOL | | | |
| CAS. 5333-42-6 | 2 - 2,5 | Xi R36/37/38 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 226-242-9 | | | |
| INDEX. - | | | |
| 5-AMINO-6-CHLORO-o-CRESOL | | | |
| CAS. 84540-50-1 | 1 - 2,5 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 283-144-9 | | | |
| INDEX. - | | | |
| N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE | | | |
| CAS. 54381-16-7 | 0,03 - 2 | Xn R22, Xi R36/38, Xi R43 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317 |
| EC. 259-134-5 | | | |
| INDEX. - | | | |
| p-AMINO-o-CRESOLO | | | |
| CAS. 2835-95-2 | 0,01 - 2 | Xi R36/37/38, Xi R43, N R50/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-618-6 | | | |
| INDEX. - | | | |
| 1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE | | | |
| CAS. 155601-30-2 | 0,05 - 1,5 | Xi R41, Xi R43, N R51/53 | Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 |
| EC. 429-300-3 | | | |
| INDEX. - | | | |
| OLEYL PHOSPHATE | | | |
| CAS. - | 1 - 1,5 | C R34 | Skin Corr. 1A H314 |
| EC. - | | | |
| INDEX. - | | | |
| 2-METHYLRESORCINOL | | | |
| CAS. 608-25-3 | 0,01 - 1,5 | T R25, Xi R36 | Acute Tox. 3 H301, Eye Irrit. 2 H319 |
| EC. 210-155-8 | | | |
| INDEX. - | | | |
| 1-NAPHTHOL | | | |
| CAS. 90-15-3 | 1 - 1,5 | Xn R21/22, Xi R37/38, Xi R41 | Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 201-969-4 | | | |
| INDEX. 604-029-00-5 | | | |
| RESORCINOL | | | |
| CAS. 108-46-3 | 0,9 - 1 | Xn R22, Xi R36/38, N R50 | STOT SE 1 H370, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1 |

| | | | |
|----------------------------------|-------------|--|---|
| EC. 203-585-2 | | | |
| INDEX. - | | | |
| Reg. no. 01-2119480136-40- | | | |
| PENTASODIUM PENTETATE | | | |
| CAS. 000140-01-2 | 0,8 - 0,9 | Repr. Cat. 3 R63, Xn R20 | Repr. 2 H361, Acute Tox. 4 H332 |
| EC. - | | | |
| INDEX. - | | | |
| p-AMINOPHENOL | | | |
| CAS. 123-30-8 | 0,007 - 0,8 | Muta. Cat. 3 R68, Xn R20/22, N R50/53 | Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 204-616-2 | | | |
| INDEX. 612-128-00-X | | | |
| 2-AMINO-3-HYDROXYPYRIDINE | | | |
| CAS. 16867-03-1 | 0,1 - 0,35 | T R25, Xi R36/37/38 | Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 |
| EC. 240-886-8 | | | |
| INDEX. - | | | |
| 4-AMINO-M-CRESOL | | | |
| CAS. 2835-99-6 | 0,2 - 0,35 | Xn R22, Xi R36/37/38, Xi R43, N R50/53 | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 |
| EC. 220-621-2 | | | |
| INDEX. - | | | |
| SODIUM DITHIONITE | | | |
| CAS. 7775-14-6 | 0,15 - 0,2 | R31, O R 7, Xn R22 | Self-heat. 1 H251, Acute Tox. 4 H302, EUH031 |
| EC. 231-890-0 | | | |
| INDEX. 016-028-00-1 | | | |
| SODIUM SULFITE | | | |
| CAS. 7757-83-7 | 0,15 - 0,2 | R31 | EUH031 |
| EC. 231-821-4 | | | |
| INDEX. - | | | |
| TETRAHYDROLINALOOL | | | |
| CAS. 78-69-3 | 0,15 - 0,2 | Xi R38, N R51/53 | Eye Irrit. 2 H319, Skin Irrit. 2 H315 |
| EC. - | | | |
| INDEX. - | | | |

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

| | |
|----------------|--|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

ETHANOLAMINE

| Threshold Limit Value. | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Type | Country | TWA/8h | | STEL/15min | | | | |
| | | mg/m3 | ppm | mg/m3 | ppm | | | |
| TLV-ACGIH | | 2,5 | 1 | 7,6 | 3 | | | |
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value for the terrestrial compartment | | | | 0,035 | | mg/kg | | |
| Normal value in fresh water | | | | 0,085 | | mg/l | | |
| Normal value in marine water | | | | 0,0085 | | mg/l | | |
| Normal value for fresh water sediment | | | | 0,425 | | mg/kg | | |
| Normal value for marine water sediment | | | | 0,0425 | | mg/kg | | |
| Normal value of STP microorganisms | | | | 100 | | mg/l | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Oral. | | | VND | 3.75 mg/kg | | | | |
| Inhalation. | | | 2 mg/m3 | 2 mg/m3 | | | 3.3 mg/m3 | VND |
| Skin. | | | VND | 0.24 mg/kg | | | VND | 1 mg/kg |

| TOLUENE 2,5-DIAMINE SULFATE | | | | | | | | |
|--|-----------------------|----------------|---------------|--------------------|----------------|---------------|---------------|------------------|
| Predicted no-effect concentration - PNEC. | | | | | | | | |
| Normal value in fresh water | | | | 0,0126 | | mg/L | | |
| Normal value in marine water | | | | 0,00126 | | mg/L | | |
| Normal value for fresh water sediment | | | | 0,0112 | | mg/Kg | | |
| Normal value for marine water sediment | | | | 0,00112 | | mg/Kg | | |
| Health - Derived no-effect level - DNEL / DMEL | | | | | | | | |
| Route of exposure | Effects on consumers. | | | Effects on workers | | | Chronic local | Chronic systemic |
| | Acute local | Acute systemic | Chronic local | Acute local | Acute systemic | Chronic local | | |
| Inhalation. | | | VND | 0,49 mg/m3 | | | | |
| Skin. | | | VND | 0,10 mg/Kg/d | | | | |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

| | |
|---------------------------------|----------------|
| Appearance | cream |
| Colour | white to beige |
| Odour | characteristic |
| Odour threshold. | Not available. |
| pH. | 10.0 - 11.4 |
| Melting point / freezing point. | Not available. |
| Initial boiling point. | Not available. |
| Boiling range. | Not available. |
| Flash point. | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower inflammability limit. | Not available. |
| Upper inflammability limit. | Not available. |
| Lower explosive limit. | Not available. |
| Upper explosive limit. | Not available. |
| Vapour pressure. | Not available. |

| | |
|--|-------------------|
| Vapour density | Not available. |
| Relative density. | 0.960 - 0.970 |
| Solubility | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | 30000 - 40000 cps |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LD50 (Oral). > 2000 mg/kg Rat

TOLUENE 2,5-DIAMINE SULFATE

LD50 (Oral). 98 mg/kg Rat

LD50 (Dermal). 6300 mg/Kg estrapolato

LC50 (Inhalation). 1,8 mg/l/4 h estrapolato

RESORCINOL

LD50 (Oral). 510 mg/Kg rat

LD50 (Dermal). 2830 mg/Kg rat

p-AMINOPHENOL

LD50 (Oral). 370 mg/Kg rat

LD50 (Dermal). > 5000 mg/Kg rat

LC50 (Inhalation). > 3,4 mg/l rat

p-AMINO-o-CRESOLO

LD50 (Oral). 3600 mg/kg Rat

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE

LD50 (Oral). 264 mg/kg Rat

1-NAPHTHOL

LD50 (Oral). 2300 mg/kg Rat

2-AMINO-3-HYDROXYPYRIDINE

LD50 (Oral). 50 mg/kg Rat

2-METHYLRESORCINOL

LD50 (Oral). 200 mg/kg Rat

2,4-DIAMINOPHENOXYETHANOL HCL

LD50 (Oral). 1113 mg/kg rat

4-AMINO-M-CRESOL

LD50 (Oral). 870 mg/kg Rat

LAURETH-3

LD50 (Oral). > 5000 mg/kg Rat

PROPYLENE GLYCOL

LD50 (Oral). > 20000 mg/kg rat

LD50 (Dermal). > 2000 mg/kg rabbit

ETHANOLAMINE

LD50 (Oral). 1515 mg/kg rat

LD50 (Dermal). 2504 mg/kg rabbit

LC50 (Inhalation). > 1,3 mg/l 6 h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

LC50 - for Fish.

86,2 mg/l/96h *Brachidanio rerio*

EC50 - for Crustacea.

11,12 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

5,53 mg/l/72h *Selenastrum capricornutum*

TOLUENE 2,5-DIAMINE SULFATE

LC50 - for Fish.

0,36 mg/l

EC50 - for Crustacea.

0,5 mg/l

EC50 - for Algae / Aquatic Plants.

0,3 mg/l/72h

RESORCINOL

LC50 - for Fish.

31,6 mg/l/96h *Leuciscus idus melanotus*

EC50 - for Crustacea.

< 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

1,1 mg/l/72h *Chlorella pyrenoidosa*

LAURETH-3

LC50 - for Fish.

> 1 mg/l/96h *Brachydanio rerio*

EC50 - for Crustacea.

> 1 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 1 mg/l/72h *Scenedesmus subspicatus*

PROPYLENE GLYCOL

EC50 - for Crustacea.

18340 mg/l/48h *Ceriodaphnia Dubia*

LC10 for Fish.

40613 mg/l/96h *Oncorhynchus mykiss*

ETHANOLAMINE

LC50 - for Fish.

170 mg/l/96h *Carassius auratus*

EC50 - for Crustacea.

65 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

2,5 mg/l/72h *Selenastrum capricornutum*

Chronic NOEC for Fish.
1,2 mg/l *Oryzias latipes*
Chronic NOEC for Crustacea.
0,85 mg/l *Daphnia magna*

12.2. Persistence and degradability.

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE
NOT rapidly biodegradable.

TOLUENE 2,5-DIAMINE SULFATE
NOT rapidly biodegradable.

RESORCINOL
Rapidly biodegradable.

p-AMINOPHENOL
Biodegradability: Information not available.

p-AMINO-o-CRESOLO
NOT rapidly biodegradable.

N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE
NOT rapidly biodegradable.

4-AMINO-M-CRESOL
NOT rapidly biodegradable.

LAURETH-3
Rapidly biodegradable.

PROPYLENE GLYCOL
Biodegradability: Information not available.

ETHANOLAMINE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category:

Cosmetic product, not relevant

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

TOLUENE 2,5-DIAMINE SULFATE

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | | |
|--------------------------|--|--|
| Muta. 2 | Germ cell mutagenicity, category 2 | |
| Repr. 2 | Reproductive toxicity, category 2 | |
| Acute Tox. 3 | Acute toxicity, category 3 | |
| STOT SE 1 | Specific target organ toxicity - single exposure, category 1 | |
| Acute Tox. 4 | Acute toxicity, category 4 | |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, category 2 | |
| Skin Corr. 1A | Skin corrosion, category 1A | |
| Eye Dam. 1 | Serious eye damage, category 1 | |
| Eye Irrit. 2 | Eye irritation, category 2 | |
| Skin Irrit. 2 | Skin irritation, category 2 | |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 | |
| Skin Sens. 1 | Skin sensitization, category 1 | |
| Skin Sens. 1A | Skin sensitization, category 1A | |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 | |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 | |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 | |
| H251 | Self-heating: may catch fire. | |
| H341 | Suspected of causing genetic defects. | |
| H361 | Suspected of damaging fertility or the unborn child. | |
| H301 | Toxic if swallowed. | |
| H370 | Causes damage to organs. | |
| H302 | Harmful if swallowed. | |
| H312 | Harmful in contact with skin. | |
| H332 | Harmful if inhaled. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H314 | Causes severe skin burns and eye damage. | |
| H318 | Causes serious eye damage. | |
| H319 | Causes serious eye irritation. | |

| | | |
|---|--|--|
| H315 | Causes skin irritation. | |
| H335 | May cause respiratory irritation. | |
| H317 | May cause an allergic skin reaction. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H411 | Toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| EUH031 | Contact with acids liberates toxic gas. | |
| Text of risk (R) phrases mentioned in section 2-3 of the sheet: | | |
| R 7 | MAY CAUSE FIRE. | |
| R20 | HARMFUL BY INHALATION. | |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. | |
| R20/21/22 | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R20/22 | HARMFUL BY INHALATION AND IF SWALLOWED. | |
| R21/22 | HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED. | |
| R22 | HARMFUL IF SWALLOWED. | |
| R25 | TOXIC IF SWALLOWED. | |
| R31 | CONTACT WITH ACIDS LIBERATES TOXIC GAS. | |
| R34 | CAUSES BURNS. | |
| R36 | IRRITATING TO EYES. | |
| R36/37 | IRRITATING TO EYES AND RESPIRATORY SYSTEM. | |
| R36/37/38 | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. | |
| R36/38 | IRRITATING TO EYES AND SKIN. | |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. | |
| R38 | IRRITATING TO SKIN. | |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. | |
| R43 | MAY CAUSE SENSITISATION BY SKIN CONTACT. | |
| R50 | VERY TOXIC TO AQUATIC ORGANISMS. | |
| R50/53 | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. | |
| Repr. Cat. 3 | Reproductive toxicity, development, category 3. | |
| R63 | POSSIBLE RISK OF HARM TO THE UNBORN CHILD. | |
| Muta. Cat. 3 | Mutagenicity, category 3. | |
| R68 | POSSIBLE RISK OF IRREVERSIBLE EFFECTS. | |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

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Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.