

## Safety data sheet

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

#### 1.1. Product identifier

Product name **DR 15 PROFUMATO**

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

Intended use **DETERGENT ONLY FOR INDUSTRIAL/PROFESSIONAL USE.  
LOW FOAMING MULTIPURPOSE DEGREASER DETERGENT.**

#### 1.3. Details of the supplier of the safety data sheet

Name **AR-CO CHIMICA S.R.L.**  
Full address **Via Canalazzo 22/24**  
District and Country **41036 MEDOLLA (MO)  
ITALY**  
  
Tel. **+39 053558890**  
Fax **+39 053558898**

e-mail address of the competent person

responsible for the Safety Data Sheet **reach@arcochimica.it**  
Product distribution by **AR-CO CHIMICA**

#### 1.4. Emergency telephone number

For urgent inquiries refer to  
**Numeri telefonici dei principali Centri Antiveleni italiani ( attivi 24/24 ore)**  
**Centro Antiveleni di Milano 02 66101029 (CAV Ospedale Niguarda Ca` Granda -Milano)**  
**(H24)**  
**Centro Antiveleni di Pavia 0382 24444 (CAV IRCCS Fondazione Maugeri - Pavia)**  
**Centro Antiveleni di Bergamo 800 883300 (CAV Ospedali Riuniti - Bergamo)**  
**Centro Antiveleni di Firenze 055 7947819 (CAV Ospedale Careggi - Firenze)**  
**Centro Antiveleni di Roma 06 3054343 (CAV Policlinico Gemelli - Roma)**  
**Centro Antiveleni di Roma 06 49978000 (CAV Policlinico Umberto I - Roma)**  
**Centro Antiveleni di Napoli 081 7472870 (CAV Ospedale Cardarelli - Napoli)**  
**AR-CO CHIMICA**  
**+39 053558890 ( ORE UFFICIO / OFFICE HOURS 08:00-12:30 / 14:00-17:30 )**

### 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:

|  |      |  |
|--|------|--|
| Skin corrosion, category 1B  | H314 | Causes severe skin burns and eye damage.           |
| Serious eye damage, category 1                                     | H318 | Causes serious eye damage.                         |
| Specific target organ toxicity - single exposure, category 3       | H335 | May cause respiratory irritation.                  |
| Hazardous to the aquatic environment, chronic toxicity, category 3 | H412 | Harmful to aquatic life with long lasting effects. |

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

Danger Symbols:

Xi

R phrases:

36/37/38-52/53

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.



Signal words:

Danger

Hazard statements:

**H314** Causes severe skin burns and eye damage.  
**H335** May cause respiratory irritation.  
**H412** Harmful to aquatic life with long lasting effects.  
**EUH208** Contains:  
(R)-P-MENTHA-1,8-DIENE

May produce an allergic reaction.

Precautionary statements:

**P273** Avoid release to the environment.  
**P280** Wear protective gloves / protective clothing / eye protection / face protection.  
**P304+P340** IF INHALED: remove person to fresh air and keep comfortable for breathing.  
**P310** Immediately call a POISON CENTER / doctor / . . .  
**P403+P233** Store in a well-ventilated place. Keep container tightly closed.

**Contains:** ETHANOLAMINE  
PHOSPHORIC ACID

**2.3. Other hazards.**

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

**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).  |
|--|------------|---------------------------------------|--|
| <b>ETHANOLAMINE</b>  |            |                                       |  |
| CAS. 141-43-5  | 5 - 9      | C R34, Xn R20/21/22                   | Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335                        |
| EC. 205-483-3  |            |                                       |  |
| INDEX. 603-030-00-8  |            |                                       |  |
| Reg. no. 01-2119486455-28-0000   |            |                                       |  |
| <b>2-(2-BUTOXYETHOXY)ETHANOL</b>   |            |                                       |  |
| CAS. 112-34-5  | 5 - 9      | Xi R36                                | Eye Irrit. 2 H319  |
| EC. 203-961-6  |            |                                       |  |
| INDEX. 603-096-00-8  |            |                                       |  |
| Reg. no. 01-2119475104-44  |            |                                       |  |
| <b>SODIUM C9-22 ALKYL SEC SULFONATE</b>                                    |            |                                       |  |
| CAS. 68188-18-1  | 1 - 5      | Xn R22, Xi R36/38                     | Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315   |
| EC. 269-144-1  |            |                                       |  |
| INDEX. -   |            |                                       |  |
| Reg. no. 01-2119517577-32  |            |                                       |  |
| <b>Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl)ether</b> |            |                                       |  |
| CAS. -   | 1 - 5      | Xi R36/38                             | Eye Irrit. 2 H319, Skin Irrit. 2 H315  |
| EC. -  |            |                                       |  |
| INDEX. -   |            |                                       |  |
| <b>PHOSPHORIC ACID</b>   |            |                                       |  |
| CAS. 7664-38-2   | 1 - 5      | C R34, Note B                         | Skin Corr. 1B H314, Note B   |
| EC. 231-633-2  |            |                                       |  |
| INDEX. 015-011-00-6  |            |                                       |  |
| Reg. no. 01-2119485924-24-0000   |            |                                       |  |
| <b>(R)-P-MENTHA-1,8-DIENE</b>  |            |                                       |  |
| CAS. 5989-27-5   | 0,25 - 0,5 | R10, Xi R38, Xi R43, N R50/53, Note C | Flam. Liq. 3 H226, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410, Note C |
| EC. 227-813-5  |            |                                       |  |
| INDEX. 601-029-00-7  |            |                                       |  |
| Reg. no. 01-2119493353-35-xxxx   |            |                                       |  |

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, foam, 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

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

**5.3. Advice for firefighters.**

## GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

## 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. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

**7.2. Conditions for safe storage, including any incompatibilities.**

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

**7.3. Specific end use(s).**

Information not available.

**SECTION 8. Exposure controls/personal protection.****8.1. Control parameters.**

Regulatory References:

|     |                  |   |
|-----|------------------|---|
| AUS | Österreich       | Grenzwerteverordnung 2011 - GKV 2011  |
| BEL | Belgique         | AR du 11/3/2002. La liste est mise à jour pour 2010                                   |
| CHE | Suisse / Schweiz | Valeurs limites d'exposition aux postes de travail 2012. / Grenzwerte am Arbeitsplatz |
| CYP | Κύπρος           | Κ.Δ.Π. 268/2001; Κ.Δ.Π. 55/2004; Κ.Δ.Π. 295/2007; Κ.Δ.Π. 70/2012                      |
| DEU | Deutschland      | MAK-und BAT-Werte-Liste 2012  |
| ESP | España           | INSHT - Límites de exposición profesional para agentes químicos en España 2015        |
| FRA | France           | JORF n°0109 du 10 mai 2012 page 8773 texte n° 102                                     |
| GRB | United Kingdom   | EH40/2005 Workplace exposure limits   |
| GRC | Ελλάδα           | ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012            |
| IRL | Éire             | Code of Practice Chemical Agent Regulations 2011                                      |
| ITA | Italia           | Decreto Legislativo 9 Aprile 2008, n.81   |
| SVN | Slovenija        | Uradni list Republike Slovenije 15. 6. 2007   |

EU OEL EU Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC;  
 TLV-ACGIH Directive 2000/39/EC.  
 ACGIH 2014

**ETHANOLAMINE****Threshold Limit Value.**

| Type      | Country | TWA/8h |     | STEL/15min |     |       |
|-----------|---------|--------|-----|------------|-----|-------|
|           |         | mg/m3  | ppm | mg/m3      | ppm |       |
| MAK       | AUS     | 2,5    | 1   | 7,6        | 3   | SKIN. |
| VLEP      | BEL     | 2,5    | 1   | 7,6        | 3   | SKIN. |
| VEL       | CHE     | 5      | 2   | 10         | 4   |       |
| MAK       | CHE     | 5      | 2   | 10         | 4   |       |
| AGW       | DEU     | 5,1    | 2   | 10,2       | 4   | SKIN. |
| MAK       | DEU     | 5,1    | 2   | 10,2       | 4   |       |
| VLA       | ESP     | 2,5    | 1   | 7,5        | 3   | SKIN. |
| VLEP      | FRA     | 2,5    | 1   | 7,6        | 3   | SKIN. |
| WEL       | GRB     | 2,5    | 1   | 7,6        | 3   | SKIN. |
| TLV       | GRC     | 2,5    | 1   | 7,6        | 3   |       |
| OEL       | IRL     | 2,5    | 1   | 7,6        | 3   | SKIN. |
| TLV       | ITA     | 2,5    | 1   | 7,6        | 3   | SKIN. |
| MV        | SVN     | 2,5    | 1   |            |     | SKIN. |
| OEL       | EU      | 2,5    | 1   | 7,6        | 3   | SKIN. |
| TLV-ACGIH |         | 7,5    | 3   | 15         | 6   |       |

**2-(2-BUTOXYETHOXY)ETHANOL****Threshold Limit Value.**

| Type      | Country | TWA/8h |     | STEL/15min |     |  |
|-----------|---------|--------|-----|------------|-----|--|
|           |         | mg/m3  | ppm | mg/m3      | ppm |  |
| MAK       | AUS     | 67,5   | 15  | 101,2      | 15  |  |
| VEL       | CHE     | 67     | 10  | 101,2      | 15  |  |
| MAK       | CHE     | 67     | 10  | 101,2      | 15  |  |
| AGW       | DEU     | 67     | 10  | 100,5      | 15  |  |
| MAK       | DEU     | 67     | 10  | 100,5      | 15  |  |
| VLA       | ESP     | 67,5   | 10  | 101,2      | 15  |  |
| TLV       | GRC     | 67,5   | 10  | 101,2      | 15  |  |
| TLV       | ITA     | 67,5   | 10  | 101,2      | 15  |  |
| MV        | SVN     | 67,5   | 10  |            |     |  |
| OEL       | EU      | 67,5   | 10  | 101,2      | 15  |  |
| TLV-ACGIH |         | 66     | 10  |            |     |  |

**PHOSPHORIC ACID****Threshold Limit Value.**

| Type | Country | TWA/8h |     | STEL/15min |     |  |
|------|---------|--------|-----|------------|-----|--|
|      |         | mg/m3  | ppm | mg/m3      | ppm |  |
| MAK  | AUS     | 1      |     | 2          |     |  |
| VLEP | BEL     | 1      |     | 2          |     |  |
| VEL  | CHE     | 1      |     | 2          |     |  |
| MAK  | CHE     | 1      |     | 2          |     |  |

|           |     |   |     |   |     |        |
|-----------|-----|---|-----|---|-----|--------|
| TLV       | CYP | 1 | 2   |   |     |        |
| AGW       | DEU | 2 | 4   |   |     | INHAL. |
| MAK       | DEU | 2 | 4   |   |     | INHAL. |
| VLA       | ESP | 1 | 2   |   |     |        |
| VLEP      | FRA | 1 | 0,2 | 2 | 0,5 |        |
| WEL       | GRB | 1 | 2   |   |     |        |
| TLV       | GRC | 1 | 3   |   |     |        |
| OEL       | IRL | 1 | 2   |   |     |        |
| TLV       | ITA | 1 | 2   |   |     |        |
| OEL       | EU  | 1 | 2   |   |     |        |
| TLV-ACGIH |     | 1 | 3   |   |     |        |

**(R)-P-MENTHA-1,8-DIENE****Threshold Limit Value.**

| Type | Country | TWA/8h |     | STEL/15min |     |       |
|------|---------|--------|-----|------------|-----|-------|
|      |         | mg/m3  | ppm | mg/m3      | ppm |       |
| AGW  | DEU     | 110    | 20  | 220        | 40  |       |
| MAK  | DEU     | 28     | 5   | 112        | 20  | SKIN. |

Legend:

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

**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.

**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 II 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 airtight protective goggles (see standard EN 166).

**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 A 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.

**ENVIRONMENTAL EXPOSURE CONTROLS.**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

**SECTION 9. Physical and chemical properties.****9.1. Information on basic physical and chemical properties.**

|  |                    |
|--|--------------------|
| Appearance                             | liquid             |
| Colour                                 | orange             |
| Odour                                  | CITRUS             |
| Odour threshold.                       | Not available.     |
| pH.                                    | 10,80 +/- 0,50     |
| Melting point / freezing point.        | Not available.     |
| Initial boiling point.                 | Not available.     |
| Boiling range.                         | Not available.     |
| Flash point.                           | Not available.     |
| Evaporation Rate                       | Not available.     |
| Flammability of solids and gases       | 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.                      | 1,020 +/- 0,025    |
| Solubility                             | IN ALL PROPORTIONS |
| Partition coefficient: n-octanol/water | Not available.     |
| Auto-ignition temperature.             | Not available.     |
| Decomposition temperature.             | Not available.     |
| Viscosity                              | Not available.     |
| 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.

PHOSPHORIC ACID: decomposes at temperatures over 200°C.

**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.

PHOSPHORIC ACID: risk of explosion on contact with nitromethane. May react dangerously with alkalis and sodium borohydride.  
2-(2-BUTOXYETHOXY)ETHANOL: can react with oxidising agents. It forms peroxides with atmospheric oxygen. When it reacts with aluminium it can generate hydrogen. May form explosive mixtures with air.  
ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

#### 10.4. Conditions to avoid.

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

2-(2-BUTOXYETHOXY)ETHANOL: avoid contact with the air.

ETHANOLAMINE: avoid exposure to air and sources of heat.

#### 10.5. Incompatible materials.

PHOSPHORIC ACID: Metals, strong alkalis, aldehydes, sulphides and peroxides.

2-(2-BUTOXYETHOXY)ETHANOL: oxidising substances, strong acids and alkaline metals.

ETHANOLAMINE: iron, strong acids and strong oxidising agents.

#### 10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID: phosphorus oxide.

2-(2-BUTOXYETHOXY)ETHANOL: hydrogen.

ETHANOLAMINE: nitrogen oxides, carbon oxides.

## 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.

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. The vapors and/or powders 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: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

This product contains sensitizing substance/s and may cause allergic reactions.

2-(2-BUTOXYETHOXY)ETHANOL: can be absorbed by inhalation, ingestion and skin contact; it is irritant to the skin and especially to the eyes; spleen damage may occur. Inhalation is unlikely to occur at room temperature due to the low vapour tension of the substance.

Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl)ether  
LD50 (Oral).> 2000 mg/Kg ratto

**PHOSPHORIC ACID**

LD50 (Oral).1530 mg/kg Rat  
LD50 (Dermal).2740 mg/kg Rabbit  
LC50 (Inhalation).> 0,85 mg/l/1h Rat

**2-(2-BUTOXYETHOXY)ETHANOL**

LD50 (Oral).3384 mg/kg Rat  
LD50 (Dermal).2700 mg/kg Rabbit

## SECTION 12. Ecological information.

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

### 12.1. Toxicity.

Oxirane, 2-methyl-, polymer  
with oxirane, mono(2-  
propylheptyl)ether

|                                       |               |
|---------------------------------------|---------------|
| LC50 - for Fish.                      | > 10 mg/l/96h |
| EC50 - for Crustacea.                 | > 10 mg/l/48h |
| EC50 - for Algae / Aquatic<br>Plants. | > 10 mg/l/72h |

**(R)-P-MENTHA-1,8-DIENE**

|                       |  |
|-----------------------|--|
| LC50 - for Fish.      | 35 mg/l/96h <i>Oncorhynchus mykiss</i> |
| EC50 - for Crustacea. | 69,6 mg/l/48h <i>Daphnia pulex</i>     |

### 12.2. Persistence and degradability.

**PHOSPHORIC ACID**

|                      |               |
|----------------------|---------------|
| Solubility in water. | > 850000 mg/l |
|----------------------|---------------|

Biodegradability: Information not available.

**(R)-P-MENTHA-1,8-DIENE**

|                      |                |
|----------------------|----------------|
| Solubility in water. | mg/l 0,1 - 100 |
|----------------------|----------------|

Rapidly biodegradable.

**2-(2-BUTOXYETHOXY)ETHANOL**

|                      |                   |
|----------------------|-------------------|
| Solubility in water. | mg/l 1000 - 10000 |
|----------------------|-------------------|

Rapidly biodegradable.

**ETHANOLAMINE**

|                      |                   |
|----------------------|-------------------|
| Solubility in water. | mg/l 1000 - 10000 |
|----------------------|-------------------|

Rapidly biodegradable.

**12.3. Bioaccumulative potential.**

(R)-P-MENTHA-1,8-DIENE

|   |      |
|---|------|
| Partition coefficient: n-octanol/water. | 4,38 |
| BCF.                                    | 1022 |

2-(2-BUTOXYETHOXY)ETHANOL  
Partition coefficient: n-octanol/water.

1

ETHANOLAMINE

|   |      |
|---|------|
| Partition coefficient: n-octanol/water. | -2,3 |
|---|------|

**12.4. Mobility in soil.**

ETHANOLAMINE

|                                    |         |
|------------------------------------|---------|
| Partition coefficient: soil/water. | -0,5646 |
|------------------------------------|---------|

**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.

CONTAMINATED PACKAGING

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

**SECTION 14. Transport information.****14.1. UN number.**

Not applicable.

**14.2. UN proper shipping name.**

Not applicable.

**14.3. Transport hazard class(es).**

Not applicable.

**14.4. Packing group.**

Not applicable.

**14.5. Environmental hazards.**

Not applicable.

**14.6. Special precautions for user.**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.**

Information not relevant.

**15.2. Chemical safety assessment.**

**SECTION 15. Regulatory information.**

No chemical safety assessment has been processed for the mixture and the substances it contains.

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

Seveso category. None.

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

Product.  
Point. 3

Contained substance.  
Point. 55 2-(2-

BUTOXYETHOXY)E  
THANOL Reg. no.:  
01-2119475104-44

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.

Ingredients according to Regulation (EC) No. 648/2004

less than 5 % anionic surfactants, non-ionic surfactants  
perfumes Citral, Limonene

## SECTION 16. Other information.

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

|                          |  |
|--------------------------|--|
| <b>Flam. Liq. 3</b>      | Flammable liquid, category 3                                       |
| <b>Acute Tox. 4</b>      | Acute toxicity, category 4   |
| <b>Skin Corr. 1B</b>     | Skin corrosion, category 1B  |
| <b>Eye Dam. 1</b>        | Serious eye damage, category 1                                     |
| <b>Eye Irrit. 2</b>      | Eye irritation, category 2   |
| <b>Skin Irrit. 2</b>     | Skin irritation, category 2  |
| <b>STOT SE 3</b>         | Specific target organ toxicity - single exposure, category 3       |
| <b>Skin Sens. 1</b>      | Skin sensitization, category 1                                     |
| <b>Aquatic Acute 1</b>   | Hazardous to the aquatic environment, acute toxicity, category 1   |
| <b>Aquatic Chronic 1</b> | Hazardous to the aquatic environment, chronic toxicity, category 1 |
| <b>Aquatic Chronic 3</b> | Hazardous to the aquatic environment, chronic toxicity, category 3 |

|             |   |
|-------------|---|
| <b>H226</b> | Flammable liquid and vapour.                          |
| <b>H302</b> | Harmful if swallowed.                                 |
| <b>H312</b> | Harmful in contact with skin.                         |
| <b>H332</b> | Harmful if inhaled.                                   |
| <b>H314</b> | Causes severe skin burns and eye damage.              |
| <b>H318</b> | Causes serious eye damage.                            |
| <b>H319</b> | Causes serious eye irritation.                        |
| <b>H315</b> | Causes skin irritation.                               |
| <b>H335</b> | May cause respiratory irritation.                     |
| <b>H317</b> | May cause an allergic skin reaction.                  |
| <b>H400</b> | Very toxic to aquatic life.                           |
| <b>H410</b> | Very toxic to aquatic life with long lasting effects. |
| <b>H412</b> | Harmful to aquatic life with long lasting effects.    |

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

|                  |  |
|------------------|--|
| <b>R10</b>       | FLAMMABLE.   |
| <b>R20/21/22</b> | HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.                                    |
| <b>R22</b>       | HARMFUL IF SWALLOWED.  |
| <b>R34</b>       | CAUSES BURNS.  |
| <b>R36</b>       | IRRITATING TO EYES.  |
| <b>R36/37/38</b> | IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.   |
| <b>R36/38</b>    | IRRITATING TO EYES AND SKIN.   |
| <b>R38</b>       | IRRITATING TO SKIN.  |
| <b>R43</b>       | MAY CAUSE SENSITISATION BY SKIN CONTACT.   |
| <b>R50/53</b>    | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. |
| <b>R52/53</b>    | HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.    |

**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 (EU) 1907/2006 (REACH) of the European Parliament
  4. Regulation (EU) 1272/2008 (CLP) of the European Parliament
  5. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
  6. Regulation (EU) 453/2010 of the European Parliament
  7. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  8. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  9. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  10. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  11. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - Niosh - Registry of Toxic Effects of Chemical Substances
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - 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.

**Changes to previous review:**

The following sections were modified:

02 / 08 / 11 / 12 / 14 / 15 / 16.