

Conforms to Reg. (EU) 878/2020

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| SECTION 1. Identification of the subs  | stance/mixture and  | of the company/u          | undertaking    |
|--|---|---------------------------|----------------|
| <b>1.1. Product identifier</b><br>Code:<br>Product name<br>UFI :   | F_299<br>Vanilla Tobacco LAUNDI<br>6HK3-E01X-200C-X6EP  | RY DETERGENT              |                |
| 1.2. Relevant identified uses of the substance or n  | nixture and uses advised a  | gainst                    |                |
| Identified Uses  | Industrial  | Professional              | Consumer       |
| Laundry detergent  | -   | <b>V</b>                  | <b>v</b>       |
| Uses Advised Against   |   |                           |                |
| Do not use for uses other than those indicated   |   |                           |                |
| <b>1.3. Details of the supplier of the safety data sheet</b><br>Name<br>Full address<br>District and Country   | NEW FADOR S.r.I.<br>via Mario Calderara, 31<br>25018 Montichiari (BS)<br>Italia<br>Tel. +39 030961 243<br>www.newfador.it |                           |                |
| e-mail address of the competent person   |   |                           |                |
| responsible for the Safety Data Sheet  | info@newfador.it  |                           |                |
| Tesponsible for the Salety Data Sheet  | IIIIO@newidu01.it   |                           |                |
| <b>1.4. Emergency telephone number</b><br>For urgent inquiries refer to  | NEW FADOR S.r.l.<br>+39 030961 243  |                           |                |
|  | (08.30 - 17.30)   |                           |                |
| SECTION 2. Hazards identification  |   |                           |                |
| 2.1. Classification of the substance or mixture  |   |                           |                |
| The product is classified as hazardous pursuant to the<br>supplements). The product thus requires a safety datase<br>Any additional information concerning the risks for healt | heet that complies with the p   | provisions of (EU) Regula | tion 2020/878. |
| Hazard classification and indication:<br>Serious eye damage, category 1  | H318  | Causes serious eye        | e damage.      |
| 2.2. Label elements  |   |                           |                |
| Hazard labelling pursuant to EC Regulation 1272/2008   | (CLP) and subsequent amer   | ndments and supplement    | S.             |
| Hazard pictograms:   |   |                           |                |
|  |   |                           |                |
|  |   |                           |                |
|  |   |                           |                |



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Signal words: Danger Hazard statements: H318 Causes serious eye damage. Precautionary statements: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P280 Wear eye protection / face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER. **Contains:** BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHOXYLATED ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS Ingredients according to Regulation (EC) No. 648/2004 Less than 5% non-ionic surfactants, soap 5% or over but less than anionic surfactants 15% perfumes Preservation agents: 2-Bromo-2-Nitropropane-1,3-Diol, Glutaral, Benzisethiazolinone

### 2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration  $\ge 0.1\%$ .

## **SECTION 3. Composition/information on ingredients**

### 3.1. Substances

Information not relevant

### 3.2. Mixtures

Contains:

| Identification             | x = Conc. % | Classification (EC) 1272/2008 (CLP) |
|----------------------------|-------------|-------------------------------------|
| BENZENESULFONIC ACID, C10- |             |                                     |



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| 13-ALKYL DERIVS., SODIUM  |              |  |
|---|--------------|--|
| SALTS<br>CAS 68411-30-3   | 3,5≤x< 4     | Acute Tox. 4 H302,<br>Eye Dam. 1 H318,<br>Skin Irrit. 2 H315,<br>Aquatic Chronic 3 H412  |
| EC 270-115-0  |              | LD50 Oral: 1080 mg/kg  |
| INDEX -   |              |  |
| REACH Reg. 01-2119489428-22   |              |  |
| ALCOHOLS, C12-13, BRANCHED<br>AND LINEAR, ETHOXYLATED<br>CAS 160901-19-9      | 2,5≤x< 3     | Acute Tox. 4 H302,<br>Eye Dam. 1 H318,<br>Aquatic Chronic 3 H412   |
| EC 931-954-4  |              | Eye Dam. 1 H318: ≥ 10%, Eye Irrit. 2 H319: ≥ 1%  |
| INDEX -   |              | LD50 Oral: >300 mg/kg  |
| REACH Reg. 01-2119490233-42   |              |  |
| ALCOHOLS, C12-14,<br>ETHOXYLATED, SULFATES,<br>SODIUM SALTS<br>CAS 68891-38-3 | 1≤x< 1,5     | Eye Dam. 1 H318,<br>Skin Irrit. 2 H315,<br>Aquatic Chronic 3 H412  |
| EC 500-234-8  |              | Eye Dam. 1 H318: ≥ 10%, Eye Irrit. 2 H319: ≥ 5%  |
| INDEX -   |              |  |
| REACH Reg. 01-2119488639-16   |              |  |
| 2-BROMO-2-NITROPROPAN-1,3-<br>DIOL  |              |  |
| CAS 52-51-7   | 0 ≤ x < 0,05 | Acute Tox. 4 H302,<br>Acute Tox. 4 H312,<br>Eye Dam. 1 H318,<br>Skin Irrit. 2 H315,<br>STOT SE 3 H335,<br>Aquatic Acute 1 H400 M=10,<br>Aquatic Chronic 2 H411 |
| EC 200-143-0  |              | STA Oral: 500 mg/kg, STA Dermal: 1100 mg/kg  |
| INDEX 603-085-00-8  |              |  |
| REACH Reg. 01-2119980938-15   |              |  |
| MORPHOLINE  |              |  |
| CAS 110-91-8  | 0 ≤ x < 0,05 | Flam. Liq. 3 H226,<br>Acute Tox. 4 H302,<br>Acute Tox. 4 H312,<br>Acute Tox. 4 H332,<br>Skin Corr. 1B H314,<br>Eye Dam. 1 H318                                 |
| EC 203-815-1  |              | LD50 Oral: 1050 mg/kg, STA Dermal: 1100 mg/kg, STA Inhalation vapours:   |
| INDEX 613-028-00-9  |              | 11 mg/l  |
| REACH Reg. 01-2119496057-30   |              |  |

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

## **SECTION 4. First aid measures**

4.1. Description of first aid measures



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EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again. INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately. INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

### 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 The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray. UNSUITABLE EXTINGUISHING EQUIPMENT None in particular.

### 5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE 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 firefighting 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



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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. 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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. 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. Store the containers sealed, in a well-ventilated place, away from direct sunlight. 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:

| BGR | България        | НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ,<br>СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари |
|-----|-----------------|---|
|     |                 | 2020г.)   |
| CZE | Česká Republika | Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se  |
|     |                 | stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů   |
| DEU | Deutschland     | Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte.  |
|     |                 | MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher   |
|     |                 | Arbeitsstoffe, Mitteilung 56  |
| DNK | Danmark         | Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019   |
| ESP | España          | Límites de exposición profesional para agentes químicos en España 2021  |
| FRA | France          | Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS  |
| GRC | Ελλάδα          | Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών  |
|     |                 | 2017/2398/EE, 2019/130/EE και 2019/983/EE «για την τροποποίηση της οδηγίας 2004/37/EK ``σχετικά με  |
|     |                 | την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή  |
|     |                 | μεταλλαξιγόνους παράγοντες κατά την εργασία``»  |
| HUN | Magyarország    | Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők   |
|     |                 | hatásának kitett munkavállalók egészségének és biztonságának védelméről   |
| HRV | Hrvatska        | Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemikalijama na radu,   |
|     |                 | graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)   |
| ITA | Italia          | Decreto Legislativo 9 Aprile 2008, n.81   |
| NLD | Nederland       | Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste  |
|     |                 | lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit  |
| PRT | Portugal        | Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes  |
|     |                 | químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à   |
|     |                 | exposição durante o trabalho a agentes cancerígenos ou mutagénicos  |
| POL | Polska          | Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie  |
|     |                 | w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w   |
|     |                 | środowisku pracy  |
| SVK | Slovensko       | NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády  |
|     |                 | Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s   |
|     |                 |   |



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| GBR<br>EU   | United Kingdom<br>OEL EU<br>TLV-ACGIH  |  | expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov<br>EH40/2005 Workplace exposure limits (Fourth Edition 2020)<br>Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983<br>Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Di<br>2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.<br>ACGIH 2021 |               |  |  |  |               |  |
|---|--|--|--|---------------|--|--|--|---------------|--|
|   | ULFONIC ACID,  |  | L DERIVS., SOD   | IUM SALTS     |  |  |  |               |  |
|   | effect concentration -   | PNEC   |  |               |  |  |  |               |  |
| Normal value ir   |  |  |  |               | 0,268  | mg   | //   |               |  |
|   | in marine water  |  |  |               | 0,027  | mg   | //   |               |  |
| Normal value for  | for fresh water sedim  | nent   |  |               | 8,1  | mg   | /kg  |               |  |
| Normal value for  | for marine water sed   | iment  |  |               | 6,8  | mg   | /kg  |               |  |
| Normal value for  | for water, intermitten   | t release  |  |               | 0,017  | mg   | //   |               |  |
| Normal value o  | of STP microorganis  | ms   |  |               | 3,43   | mg   | //   |               |  |
| Normal value fo   | for the terrestrial con  | npartment  |  |               | 35   | mg   | /kg  |               |  |
| Health - Deri   | rived no-effect le   | vel - DNEL / E<br>Effects on<br>consumers  | DMEL   |               |  | Effects on workers   |  |               |  |
| Route of expos  | sure   | Acute local  | Acute systemic   | Chronic local | Chronic<br>systemic  | Acute local  | Acute<br>systemic                                  | Chronic local | Chronic<br>systemic                                    |
| Oral  |  |  |  |               | 0,425 mg/kg<br>bw/d  |  |  |               |  |
| Inhalation  |  |  |  | 1,5           | 1,5 mg/m3  |  |  | 6             | 6 mg/m3  |
|   |  |  |  |               | 42,5 mg/kg   |  |  |               | 85 mg/kg   |
|   | C12-14 ETHOY   |  |  |               | bw/d   |  |  |               | bw/d   |
|   | <b>5, C12-14, ETHOX</b><br>affect concentration -<br>in fresh water  |  | LFATES, SODIUI   | M SALTS       |  | mg   | /l   |               |  |
| ALCOHOLS,<br>Predicted no-e<br>Normal value ir  | effect concentration -   |  | LFATES, SODIUI   | M SALTS       | bw/d   | mg   |  |               |  |
| ALCOHOLS<br>Predicted no-e<br>Normal value ir<br>Normal value ir  | effect concentration -<br>in fresh water   | PNEC   | LFATES, SODIUI   | M SALTS       | 0,24   | mg   |  |               |  |
| ALCOHOLS,<br>Predicted no-ei<br>Normal value ir<br>Normal value ir  | effect concentration -<br>in fresh water<br>in marine water  | PNEC   | LFATES, SODIUI   | M SALTS       | 0,24<br>0,024  | mg   | /l<br>/kg  |               |  |
| ALCOHOLS<br>Predicted no-e<br>Normal value ir<br>Normal value fo<br>Normal value fo   | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed   | PNEC hent  | LFATES, SODIUI   | M SALTS       | 0,24<br>0,024<br>0,017<br>0,092  | mg<br>mg<br>mg   | /l<br>/kg<br>/kg                                   |               |  |
| ALCOHOLS,<br>Predicted no-e<br>Normal value ir<br>Normal value fr<br>Normal value fr<br>Normal value fr   | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten   | PNEC<br>nent<br>iment<br>t release   | LFATES, SODIUI   | M SALTS       | 0,24<br>0,024<br>0,917<br>0,092<br>0,071   | mg<br>mg<br>mg<br>mg   | /l<br>/kg<br>/kg                                   |               |  |
| ALCOHOLS,<br>Predicted no-ei<br>Normal value ir<br>Normal value fr<br>Normal value fr<br>Normal value fr<br>Normal value fr   | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten<br>of STP microorganis  | PNEC<br>hent<br>iment<br>t release<br>ms   | LFATES, SODIUI   | M SALTS       | 0,24<br>0,024<br>0,917<br>0,092<br>0,071<br>10   | mg<br>mg<br>mg<br>g/l  | /l<br>/kg<br>/l                                    |               |  |
| ALCOHOLS,<br>Predicted no-ei<br>Normal value ir<br>Normal value fr<br>Normal value fr<br>Normal value fr<br>Normal value fr<br>Normal value fr  | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten   | PNEC<br>hent<br>iment<br>t release<br>ms<br>hpartment<br><b>vel - DNEL / [</b><br>Effects on                                   |  | M SALTS       | 0,24<br>0,024<br>0,917<br>0,092<br>0,071   | mg<br>mg<br>mg<br>g/i<br>mg<br>Effects on                                  | /l<br>/kg<br>/kg                                   |               |  |
| ALCOHOLS,<br>Predicted no-ei<br>Normal value ir<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo   | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten<br>of STP microorganis<br>for the terrestrial con<br><b>rived no-effect le</b>  | PNEC<br>nent<br>iment<br>t release<br>ms<br>npartment<br><b>vel - DNEL / [</b>   |  | M SALTS       | 0,24<br>0,024<br>0,917<br>0,092<br>0,071<br>10   | mg<br>mg<br>mg<br>g/l<br>mg  | /l<br>/kg<br>/l                                    | Chronic local |  |
| ALCOHOLS,<br>Predicted no-e<br>Normal value in<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Health - Deri<br>Route of expos   | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten<br>of STP microorganis<br>for the terrestrial con<br><b>rived no-effect le</b>  | PNEC<br>nent<br>iment<br>t release<br>ms<br>npartment<br><b>vel - DNEL / I</b><br>Effects on<br>consumers                      | DMEL   |               | bw/d 0,24<br>0,24<br>0,024<br>0,0917<br>0,092<br>0,071<br>10<br>7,5<br>Chronic<br>systemic   | mg<br>mg<br>mg<br>g/l<br>g/l<br>Effects on<br>workers                      | /l<br>/kg<br>/l<br>/kg                             | Chronic local | bw/d   |
| ALCOHOLS,<br>Predicted no-ei<br>Normal value ir<br>Normal value fr<br>Normal value fr<br>Normal value fr<br>Normal value fr<br>Normal value fo<br>Normal value fo<br>Route of expos   | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten<br>of STP microorganis<br>for the terrestrial con<br><b>rived no-effect le</b>  | PNEC<br>nent<br>iment<br>t release<br>ms<br>npartment<br><b>vel - DNEL / I</b><br>Effects on<br>consumers                      | DMEL   |               | bw/d<br>0,24<br>0,024<br>0,917<br>0,092<br>0,071<br>10<br>7,5<br>Chronic<br>systemic<br>15 mg/kg<br>bw/d                                   | mg<br>mg<br>mg<br>g/l<br>g/l<br>Effects on<br>workers                      | //<br>/kg<br>//<br>/kg<br>/kg<br>Acute             | Chronic local | bw/d<br>Chronic<br>systemic                            |
| ALCOHOLS,<br>Predicted no-e<br>Normal value in<br>Normal value in<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Health - Deri<br>Route of expose<br>Oral  | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten<br>of STP microorganis<br>for the terrestrial con<br><b>rived no-effect le</b>  | PNEC<br>nent<br>iment<br>t release<br>ms<br>npartment<br><b>vel - DNEL / I</b><br>Effects on<br>consumers                      | DMEL   |               | bw/d<br>0,24<br>0,024<br>0,917<br>0,092<br>0,071<br>10<br>7,5<br>Chronic<br>systemic<br>15 mg/kg<br>bw/d<br>52 mg/m3                       | mg<br>mg<br>mg<br>g/l<br>g/l<br>Effects on<br>workers                      | //<br>/kg<br>//<br>/kg<br>/kg<br>Acute             | Chronic local | bw/d<br>Chronic<br>systemic<br>175 mg/m3               |
| ALCOHOLS,<br>Predicted no-e<br>Normal value in<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Route of expose<br>Dral   | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten<br>of STP microorganis<br>for the terrestrial con<br><b>rived no-effect le</b>  | PNEC<br>nent<br>iment<br>t release<br>ms<br>npartment<br><b>vel - DNEL / I</b><br>Effects on<br>consumers                      | DMEL   |               | bw/d<br>0,24<br>0,024<br>0,917<br>0,092<br>0,071<br>10<br>7,5<br>Chronic<br>systemic<br>15 mg/kg<br>bw/d                                   | mg<br>mg<br>mg<br>g/l<br>g/l<br>Effects on<br>workers                      | //<br>/kg<br>//<br>/kg<br>/kg<br>Acute             | Chronic local | bw/d<br>Chronic<br>systemic                            |
| ALCOHOLS,<br>Predicted no-ei<br>Normal value in<br>Normal value in<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Health - Deri<br>Route of expos<br>Oral<br>Inhalation<br>Skin                                  | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten<br>of STP microorganis<br>for the terrestrial con<br><b>rived no-effect le</b>  | PNEC<br>hent<br>iment<br>t release<br>ms<br>hpartment<br>vel - DNEL / I<br>Effects on<br>consumers<br>Acute local<br>-1,3-DIOL | DMEL   |               | bw/d<br>0,24<br>0,024<br>0,0917<br>0,092<br>0,071<br>10<br>7,5<br>Chronic<br>systemic<br>15 mg/kg<br>bw/d<br>52 mg/m3<br>1650 mg/kg        | mg<br>mg<br>mg<br>g/l<br>g/l<br>Effects on<br>workers                      | //<br>/kg<br>//<br>/kg<br>/kg<br>Acute             | Chronic local | bw/d<br>Chronic<br>systemic<br>175 mg/m3<br>2750 mg/kg |
| ALCOHOLS,<br>Predicted no-ei<br>Normal value in<br>Normal value in<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Health - Deri<br>Route of exposi<br>Oral<br>Inhalation<br>Skin                                 | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten<br>of STP microorganis<br>for the terrestrial con<br><b>rived no-effect lev</b><br>sure   | PNEC<br>hent<br>iment<br>t release<br>ms<br>hpartment<br>vel - DNEL / I<br>Effects on<br>consumers<br>Acute local<br>-1,3-DIOL | DMEL   |               | bw/d<br>0,24<br>0,024<br>0,0917<br>0,092<br>0,071<br>10<br>7,5<br>Chronic<br>systemic<br>15 mg/kg<br>bw/d<br>52 mg/m3<br>1650 mg/kg        | mg<br>mg<br>mg<br>g/l<br>g/l<br>Effects on<br>workers                      | /l<br>/kg<br>/kg<br>/l<br>/kg<br>Acute<br>systemic | Chronic local | bw/d<br>Chronic<br>systemic<br>175 mg/m3<br>2750 mg/kg |
| ALCOHOLS,<br>Predicted no-ei<br>Normal value ir<br>Normal value fr<br>Normal value fr<br>Normal value fr<br>Normal value fr<br>Normal value fr<br>Normal value fr<br>Health - Deri<br>Route of expos<br>Oral<br>Inhalation<br>Skin<br>2-BROMO-2-<br>Predicted no-ei | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten<br>of STP microorganis<br>for the terrestrial con<br><b>rived no-effect lev</b><br>sure   | PNEC<br>hent<br>iment<br>t release<br>ms<br>hpartment<br>vel - DNEL / I<br>Effects on<br>consumers<br>Acute local<br>-1,3-DIOL | DMEL   |               | bw/d<br>0,24<br>0,024<br>0,917<br>0,092<br>0,071<br>10<br>7,5<br>Chronic<br>systemic<br>15 mg/kg<br>bw/d<br>52 mg/m3<br>1650 mg/kg<br>bw/d | mg<br>mg<br>g/l<br>g/l<br>mg<br>Effects on<br>workers<br>Acute local       | /l //kg //kg //l //kg Acute systemic               | Chronic local | bw/d<br>Chronic<br>systemic<br>175 mg/m3<br>2750 mg/kg |
| ALCOHOLS,<br>Predicted no-ei<br>Normal value in<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Normal value fo<br>Health - Deri<br>Route of expos<br>Oral<br>Inhalation<br>Skin<br>2-BROMO-2-<br>Predicted no-ei<br>Normal value in | effect concentration -<br>in fresh water<br>in marine water<br>for fresh water sedim<br>for marine water sed<br>for water, intermitten<br>of STP microorganis<br>for the terrestrial con<br><b>rived no-effect le</b><br>sure<br><b>PAITROPROPAN</b><br>effect concentration -<br>in fresh water | PNEC hent iment t release ms hpartment <b>vel - DNEL / I</b> Effects on consumers Acute local -1,3-DIOL PNEC                   | DMEL   |               | bw/d 0,24 0,024 0,917 0,092 0,071 10 7,5 Chronic systemic 15 mg/kg bw/d 52 mg/m3 1650 mg/kg bw/d   | mg<br>mg<br>g/l<br>mg<br>g/l<br>mg<br>Effects on<br>workers<br>Acute local | /l //kg //kg //l //kg Acute systemic               | Chronic local | bw/d<br>Chronic<br>systemic<br>175 mg/m3<br>2750 mg/kg |



Conforms to Reg. (EU) 878/2020

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| Derived no-effect levit - DNEL  | ormal value for water, intermitter           | nt release               |                |               | 0,003      | mg                     | ı/I          |               |                     |
|---|--|--------------------------|----------------|---------------|------------|------------------------|--------------|---------------|---------------------|
| Health - Derived no-effect level - DMEL         Effects on workers         Effects on workers         Effects on workers           Roule local         Acute local         Acute systemic         Chronic local         Acute local systemic         Chronic local US Systemic         Chronic Local Systemic         Chr  | ormal value of STP microorganis              | sms                      |                |               | 0,43       | mg                     | ı/I          |               |                     |
| Radie of exposure Acute local | Normal value for the terrestrial compartment |                          |                |               | 0,5        | mg                     |              |               |                     |
| opensumes         opensumes         workers         workers           Acute local         Acute systemic         Chronic local           Sin         1.3 mg/m3         3.7 mg/m3         1.3 mg/m3         4.2 mg/m3         4.2 mg/m3         0.03         Moreal         Acute systemic         Moreal         Moreal         Moreal         Acute systemic         Moreal         Moreal         Moreal         Acute systemic         Moreal         Moreal<  | ealth - Derived no-effect le                 |                          | MEL            |               |            |                        |              |               |                     |
| Oral         1.1 mg/kg bwl         oystemic         systemic         systemic           Inhibition         1.3 mg/m3         3.7 mg/m3         1.3 mg/m3         12.4 mg/m3         0.035 mg/sm2         12.4 mg/m3         0.013         12.3 mg/m3         4.2 mg/m3         0.013         mg/m3         12.3 mg/m3         0.013         mg/m3         12.3 mg/m3         0.013         mg/m3         12.3 mg/m3         0.013         mg/m3         12.3 mg/m3   |  |                          |                |               |            |                        |              |               |                     |
| Oral       1,1 mg/kg bw/d       0.35 mg/kg bw/d       0.35 mg/kg bw/d       1.2 mg/m3       4.2 mg/m3       0.013       7 mg/kg bw/d       0.013       7 mg/kg bw/d       0.013       mg/m3       0.013       7 mg/kg bw/d       0.013       mg/m3       0.013       0.013       0.013       0.013       0.013       0.013       0.013       0.013       0.013       0.013       0.013       0.013       0.013       0.013       0.013       0.013       0.013       0.013  | oute of exposure                             | Acute local              | Acute systemic | Chronic local |            | Acute local            |              | Chronic local | Chronic<br>systemic |
| Inhalation 1, 3 mg/m3 0, 7 mg/m3 1, 3 mg/m3 0, 008 mg/cm2 1, 3 mg/m3 0, 008 mg/cm2 1, 3 mg/m3 0, 008 mg/cm2 1, 3 mg/m3 1, 3 mg/m3 0, 008 mg/cm2 1, 3 mg/m3 1, 3 mg/m3 0, 008 mg/cm2 1, 3 mg/m3 0, 013 mg/m3 0, 014 | ral  |                          | 1,1 mg/kg bw/d |               | 0,35 mg/kg |                        | -,           |               |                     |
| bw/d         mg/cm2         mg/cm2         mg/cm2           KORPHOLINE<br>Threshold Limit Value         T         Remarks /<br>More         Remarks /<br>Remarks /<br>More           Type         Country         T/W A/8h         STEL/15min         Remarks /<br>Remarks /<br>More           TUV         BGR         20         SKIN           TUV         CZE         35         70         SKIN           AGW         DEU         36         10         72         20         SKIN           AGW         DEU         36         10         72         20         SKIN           VLA         ESP         36         10         72         20         SKIN           VLA         ESP         36         10         72         20         SKIN           VLA         GRC         36         10         72         20         SKIN           GVIKGV1         HRV         36         10         72         20         SKIN           GVIKGV1         HRV         36         10         72         20         SKIN           VLE         RFR         36         10         72         20         SKIN           NSNSNCS         POL         3   |  |                          |                |               | 1,2 mg/m3  |                        |              |               | 4,1 mg/m            |
| Threshold Limit Value         STEL/15min         Remarks / Observations           TV         BGR         20         STEL/15min         Remarks / Observations           TLV         BGR         20         SKIN         SKIN           TLV         CZE         35         70         SKIN           AGW         DEU         36         10         72         20         SKIN           MAK         DEU         36         10         72         20         SKIN           MAK         DEU         36         10         72         20         SKIN           VLA         ESP         36         10         72         20         SKIN           VLP         FRA         36         10         72         20         SKIN           VLP         FRA         36         10         72         20         SKIN           VLP         RA         10         72         20         SKIN           VLP         RA         36         10         72         20         SKIN           VLE         PRT         36         10         72         20         SKIN           VLE <t< td=""><td>kin</td><td>0,008 mg/cm2</td><td>4,2 mg/kg bw/d</td><td>0,008 mg/cm2</td><td></td><td></td><td>7 mg/kg bw/d</td><td></td><td>2,3 mg/kg<br/>bw/d</td></t<>   | kin  | 0,008 mg/cm2             | 4,2 mg/kg bw/d | 0,008 mg/cm2  |            |                        | 7 mg/kg bw/d |               | 2,3 mg/kg<br>bw/d   |
| Type         Country         TWA/8h         STEL/15min         Remarks / Observations           mg/m3         ppm         mg/m3         ppm         Observations         Observations           TLV         BGR         20         SKIN         SKIN           AGW         DEU         36         10         72         20         SKIN           AGW         DEU         36         10         72         20         SKIN           MAK         DEU         36         10         72         20         SKIN           VLA         ESP         36         10         72         20         SKIN           VLP         DNK         36         10         72         20         SKIN           VLP         FRA         36         10         72         20         SKIN           VLP         FRA         36         10         72         20         SKIN           VLP         ITA         36         10         72         20         SKIN           VLP         ITA         36         10         72         20         SKIN           VLP         ITA         36         10         72         20 </td <td>ORPHOLINE</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>   | ORPHOLINE                                    |                          |                |               |            |                        |              |               |                     |
| mg/m3         ppm         mg/m3         ppm           TLV         BGR         20         SKIN           TLV         CZE         35         70         SKIN           AGW         DEU         36         10         72         20         SKIN           MAK         DEU         36         10         72         20         SKIN           MAK         DEU         36         10         72         20         TUV           NMK         36         10         72         20         TUV         SKIN           VLP         FRA         36         10         72         20         TUV           GRC         36         10         72         20         TUV         SKIN           GVIKGV1         HRV         36         10         72         20         SKIN           GVIKGV1         HRV         36         10         72         20         SKIN           VLE         PRT         36         10         72         20         SKIN           VLE         PRT         36         10         72         20         SKIN           OEL         EU         36  |  |                          |                |               |            |                        |              |               |                     |
| TLV       BGR       20       SKIN         TLV       CZE       35       70       SKIN         AGW       DEU       36       10       72       20       SKIN         MAK       DEU       36       10       72       20       SKIN         MAK       DEU       36       10       72       20       TUV         NMK       36       10       72       20       TUV         VLA       ESP       36       10       72       20       TUV         VLP       FRA       36       10       72       20       TUV       GRC       36       10       72       20       TUV       SKIN         GVI/KGV1       HRV       36       10       72       20       SKIN   | /pe  | Country                  | TVVA/8h        |               | STEL/15min |                        |              | ins           |                     |
| TUV       CZE       35       70       SKIN         AGW       DEU       36       10       72       20       SKIN         MAK       DEU       36       10       72       20       SKIN         MAK       DEU       36       10       72       20       TUN         TUV       DNK       36       10       72       20       TUN         VLA       ESP       36       10       72       20       TUN         VLP       FRA       36       10       72       20       SKIN         GVI/KOV       GRC       36       10       72       20       SKIN         GVI/KOV       HRV       36       10       72       20       SKIN         GVI/KOV       HRV       36       10       72       20       SKIN         VLE       PRT       36       10       72       20       SKIN         VLE       PRT       36       10       72       20       SKIN         VEL       GBR       36       10       72       20       SKIN         OEL       EU       36       10       72       20  |  |                          | -              | ppm           | mg/m3      | ppm                    |              |               |                     |
| AGW       DEU       36       10       72       20       SKIN         MAK       DEU       36       10       72       20  | V  | BGR                      | 20             |               |            |                        | SKIN         |               |                     |
| MAK       DEU       36       10       72       20         TLV       DNK       36       10       72       20         VLA       ESP       36       10       72       20         VLEP       FRA       36       10       72       20         TLV       GRC       36       10       72       20         AK       HUN       70       70       SKIN         GVI/KGVI       HRV       36       10       72       20       SKIN         VLEP       ITA       36       10       72       20       SKIN         TGG       NLD       36       10       72       20       SKIN         VLE       PRT       36       10       72       20       SKIN         VLE       PRT       36       10       72       20       SKIN         VEL       GBR       36       10       72       20       SKIN         OEL       GBR       36       10       72       20       SKIN         OEL       GBR       36       10       72       20       SKIN         OEL       OL       ng/L       ng   | V  |                          | 35             |               |            |                        | SKIN         |               |                     |
| TLV       DNK       36       10       72       20         VLA       ESP       36       10       72       20         VLEP       FRA       36       10       72       20         TLV       GRC       36       10       72       20         AK       HUN       70       70       SKIN         GV/KGVI       HRV       36       10       72       20       SKIN         QV/KEP       ITA       36       10       72       20       SKIN         GV/KGVI       HRV       36       10       72       20       SKIN         TGG       NLD       36       10       72       20       SKIN         VLE       PRT       36       10       72       20       SKIN         VEL       QBR       36       10       72       20       SKIN         OEL       EU       36       10       72       20       SKIN         VL-ACGIH       71       20       SKIN       SKIN       SKIN         Predicted no-effect concentration - PNEC       Normal value in fresh water sediment       0,01       mg/t         Normal value for fresh wat  | GW   | DEU                      | 36             | 10            | 72         | 20                     | SKIN         |               |                     |
| VLA       ESP       36       10       72       20         VLEP       FRA       36       10       72       20         TLV       GRC       36       10       72       20         AK       HUN       70       70       SKIN         GV/KGVI       HRV       36       10       72       20       SKIN         QV/LEP       ITA       36       10       72       20       SKIN         TGG       NLD       36       10       72       20       SKIN         VLE       PRT       36       10       72       20       SKIN         VLE       PRT       36       10       72       20       SKIN         VEL       GBR       36       10       72       20       SKIN         OEL       EU       36       10       72       20       SKIN         OEL       EU       36       10       72       20       SKIN         Orealida no-effect concentration - PNEC       VLACGIH       71       20       SKIN         Normal value in fresh water       0,01       mg/l       Mg/l       Mg/l         Normal value for marine  | AK   | DEU                      | 36             | 10            | 72         | 20                     |              |               |                     |
| VLEP       FRA       36       10       72       20         TLV       GRC       36       10       72       20         AK       HUN       70       70       SKIN         GV/KGVI       HRV       36       10       72       20       SKIN         QV/LEP       ITA       36       10       72       20       SKIN         TGG       NLD       36       10       72       20       SKIN         TGG       NLD       36       10       72       20       SKIN         VLE       PRT       36       10       72       20       SKIN         NDS/NDSCh       POL       36       72       20       SKIN         OEL       SVK       36       10       72       20       SKIN         OEL       EU       36       10       72       20       SKIN         Orealized no-effect concentration - PNEC       71       20       SKIN       SKIN         Normal value in marine water $0,01$ mg/l       Intervestion       SKIN         Normal value for fresh water sediment $0,01$ mg/kg       Intervestion       SKIN  | _V   | DNK                      | 36             | 10            |            |                        | SKIN         |               |                     |
| TLV       GRC       36       10       72       20         AK       HUN       70       70       SKIN         GV/KGVI       HRV       36       10       72       20       SKIN         VLEP       ITA       36       10       72       20       SKIN         TGG       NLD       36       10       72       20       SKIN         VLE       PRT       36       10       72       20       SKIN         VLE       PRT       36       10       72       20       SKIN         NDS/NDSCh       POL       36       72   | LA   | ESP                      | 36             | 10            | 72         | 20                     |              |               |                     |
| AK         HUN         70         70         SKIN           GVUKGVI         HRV         36         10         72         20         SKIN           VLEP         ITA         36         10         72         20         SKIN           TGG         NLD         36         10         72         20         SKIN           TGG         NLD         36         10         72         20         SKIN           VLE         PRT         36         10         72         20         SKIN           NDS/NDSCh         POL         36         10         72         20         SKIN           VEL         GBR         36         10         72         20         SKIN           OEL         EU         36         10         72         20         SKIN           Predicted no-effect concentration - PNEC         71         20         SKIN         SKIN           Normal value in fresh water         0,1         mg/l         Mg/l         Mg/l           Normal value for fresh water sediment         0,01         mg/kg         Mg/l         Mg/l           Normal value for marine water sediment         1,49         mg/l         Mg/l  | LEP  | FRA                      | 36             | 10            | 72         | 20                     |              |               |                     |
| GV/KGVI         HRV         36         10         72         20         SKIN           VLEP         ITA         36         10         72         20         SKIN           TGG         NLD         36         10         72         20         SKIN           TGG         NLD         36         10         72         20         SKIN           VLE         PRT         36         10         72         20         SKIN           VLE         PRT         36         10         72         20         SKIN           NDS/NDSCh         POL         36         72           SKIN           WEL         GBR         36         10         72         20         SKIN           OEL         EU         36         10         72         20            TLV-ACGIH         71         20         SKIN             Normal value in fresh water         0,01         mg/1            Normal value for fresh water sediment         0,01         mg/kg            Normal value for marine water sediment         1,49         mg/kg            Normal va   | _V   | GRC                      | 36             | 10            | 72         | 20                     |              |               |                     |
| VLEP         ITA         36         10         72         20         SKIN           TGG         NLD         36         10         72         20         SKIN           VLE         PRT         36         10         72         20         SKIN           VLE         PRT         36         10         72         20         SKIN           NDS/NDSCh         POL         36         72         20         SKIN           NPEL         SVK         36         10         72         20         SKIN           OEL         GBR         36         10         72         20         SKIN           OEL         EU         36         10         72         20         TUV-ACGIH         T1         20         SKIN           Predicted no-effect concentration - PNEC         71         20         SKIN         SKIN         SKIN           Normal value in fresh water         0,1         mg/1         SKIN         SKIN         SKIN           Normal value for fresh water sediment         0,01         mg/kg         SKIN  | K  | HUN                      | 70             |               | 70         |                        | SKIN         |               |                     |
| TGG         NLD         36         10         72         20         SKIN           VLE         PRT         36         10         72         20         N           NDS/NDSCh         POL         36         72         20         SKIN           NPEL         SVK         36         10         72         20         SKIN           WEL         GBR         36         10         72         20         SKIN           OEL         EU         36         10         72         20         SKIN           OEL         EU         36         10         72         20         SKIN           OEL         FU         36         10         72         20         SKIN           OEL         FU         36         10         72         20         SKIN           Ormal value in resh water         71         20         SKIN         SKIN         SKIN           Normal value for fresh water sediment         0,1         mg/l         mg/l         SKIN           Normal value for fresh water sediment         0,01         mg/kg         SKIN         SKIN         SKIN           Normal value for water, intermittent release  | VI/KGVI                                      | HRV                      | 36             | 10            | 72         | 20                     | SKIN         |               |                     |
| VLE         PRT         36         10         72         20           NDS/NDSCh         POL         36         72   | LEP  | ITA                      | 36             | 10            | 72         | 20                     | SKIN         |               |                     |
| NDS/NDSCh         POL         36         72           NPEL         SVK         36         10         72           WEL         GBR         36         10         72         20         SKIN           OEL         EU         36         10         72         20         SKIN           OEL         EU         36         10         72         20         SKIN           OEL         EU         36         10         72         20         SKIN           Predicted no-effect concentration - PNEC         71         20         SKIN         SKIN           Normal value in fresh water         0,1         mg/l         mg/l         SKIN           Normal value in marine water         0,01         mg/l         mg/l         SKIN           Normal value for fresh water sediment         0,01         mg/kg         SKIN         SKIN <td>GG</td> <td>NLD</td> <td>36</td> <td>10</td> <td>72</td> <td>20</td> <td>SKIN</td> <td></td> <td></td>  | GG   | NLD                      | 36             | 10            | 72         | 20                     | SKIN         |               |                     |
| NPEL         SVK         36         10         72           WEL         GBR         36         10         72         20         SKIN           OEL         EU         36         10         72         20         TUPACGIH         71         20         SKIN           Predicted no-effect concentration - PNEC         71         20         SKIN         SKIN           Normal value in fresh water         0,1         mg/l         Mormal value in marine water         0,01         mg/l           Normal value in fresh water sediment         0,01         mg/kg         Mormal value for marine water sediment         0,28         mg/l           Normal value for water, intermittent release         0,28         mg/l         Mormal value for the terrestrial compartment         0,239         mg/kg           Normal value for the terrestrial compartment         0,239         mg/kg         Stripping  | LE   | PRT                      | 36             | 10            | 72         | 20                     |              |               |                     |
| WEL       GBR       36       10       72       20       SKIN         OEL       EU       36       10       72       20          TLV-ACGIH       71       20       SKIN           Predicted no-effect concentration - PNEC       71       20       SKIN         Normal value in fresh water       0,1       mg/l          Normal value in marine water       0,01       mg/kg          Normal value for fresh water sediment       0,01       mg/kg          Normal value for marine water sediment       1,49       mg/kg          Normal value for water, intermittent release       0,28       mg/l          Normal value for the terrestrial compartment       0,239       mg/kg          Normal value for the terrestrial compartment       0,239       mg/kg  | DS/NDSCh                                     | POL                      | 36             |               | 72         |                        |              |               |                     |
| OEL     EU     36     10     72     20       TLV-ACGIH     71     20     SKIN       Predicted no-effect concentration - PNEC     0,1     mg/l       Normal value in fresh water     0,1     mg/l       Normal value in marine water     0,01     mg/kg       Normal value for fresh water sediment     0,01     mg/kg       Normal value for marine water sediment     1,49     mg/kg       Normal value for water, intermittent release     0,28     mg/l       Normal value of STP microorganisms     10     mg/kg       Normal value for the terrestrial compartment     0,239     mg/kg       Health - Derived no-effect level - DNEL / DMEL     Effects on     Effects on  | PEL  | SVK                      | 36             | 10            | 72         |                        |              |               |                     |
| TLV-ACGIH       71       20       SKIN         Predicted no-effect concentration - PNEC       0,1       mg/l         Normal value in fresh water       0,1       mg/l         Normal value in marine water       0,01       mg/l         Normal value for fresh water sediment       0,01       mg/kg         Normal value for marine water sediment       1,49       mg/kg         Normal value for water, intermittent release       0,28       mg/l         Normal value of STP microorganisms       10       mg/kg         Normal value for the terrestrial compartment       0,239       mg/kg         Health - Derived no-effect level - DNEL / DMEL       Effects on       Effects on  | ′EL  | GBR                      | 36             | 10            | 72         | 20                     | SKIN         |               |                     |
| Predicted no-effect concentration - PNEC         Normal value in fresh water       0,1       mg/l         Normal value in marine water       0,01       mg/kg         Normal value for fresh water sediment       0,01       mg/kg         Normal value for marine water sediment       1,49       mg/kg         Normal value for water, intermittent release       0,28       mg/l         Normal value of STP microorganisms       10       mg/kg         Normal value for the terrestrial compartment       0,239       mg/kg         Health - Derived no-effect level - DNEL / DMEL       Effects on       Effects on   | EL   | EU                       | 36             | 10            | 72         | 20                     |              |               |                     |
| Normal value in fresh water       0,1       mg/l         Normal value in marine water       0,01       mg/l         Normal value for fresh water sediment       0,01       mg/kg         Normal value for marine water sediment       1,49       mg/kg         Normal value for water, intermittent release       0,28       mg/l         Normal value of STP microorganisms       10       mg/kg         Normal value for the terrestrial compartment       0,239       mg/kg         Health - Derived no-effect level - DNEL / DMEL       Effects on       Effects on   | _V-ACGIH                                     |                          | 71             | 20            |            |                        | SKIN         |               |                     |
| Normal value in marine water       0,01       mg/l         Normal value for fresh water sediment       0,01       mg/kg         Normal value for marine water sediment       1,49       mg/kg         Normal value for water, intermittent release       0,28       mg/l         Normal value of STP microorganisms       10       mg/kg         Normal value for the terrestrial compartment       0,239       mg/kg         Health - Derived no-effect level - DNEL / DMEL       Effects on       Effects on  | redicted no-effect concentration             | - PNEC                   |                |               |            |                        |              |               |                     |
| Normal value for fresh water sediment       0,01       mg/kg         Normal value for marine water sediment       1,49       mg/kg         Normal value for water, intermittent release       0,28       mg/l         Normal value of STP microorganisms       10       mg/l         Normal value for the terrestrial compartment       0,239       mg/kg         Health - Derived no-effect level - DNEL / DMEL<br>Effects on       Effects on       Effects on  | ormal value in fresh water                   |                          |                |               | 0,1        | mg                     | J/I          |               |                     |
| Normal value for marine water sediment       1,49       mg/kg         Normal value for water, intermittent release       0,28       mg/l         Normal value of STP microorganisms       10       mg/l         Normal value for the terrestrial compartment       0,239       mg/kg         Health - Derived no-effect level - DNEL / DMEL<br>Effects on       Effects on       Effects on   | ormal value in marine water                  |                          |                |               | 0,01       | mg                     | ı/I          |               |                     |
| Normal value for water, intermittent release       0,28       mg/l         Normal value of STP microorganisms       10       mg/l         Normal value for the terrestrial compartment       0,239       mg/kg         Health - Derived no-effect level - DNEL / DMEL<br>Effects on       Effects on       Effects on   | ormal value for fresh water sedir            | nent                     |                |               | 0,01       | mg                     | ı/kg         |               |                     |
| Normal value of STP microorganisms       10       mg/l         Normal value for the terrestrial compartment       0,239       mg/kg         Health - Derived no-effect level - DNEL / DMEL<br>Effects on       Effects on   | ormal value for marine water sec             | liment                   |                |               | 1,49       | mg                     | ı/kg         |               |                     |
| Normal value for the terrestrial compartment 0,239 mg/kg Health - Derived no-effect level - DNEL / DMEL Effects on Effects on   | Normal value for water, intermittent release |                          |                | 0,28          | mg         | J/I                    |              |               |                     |
| Health - Derived no-effect level - DNEL / DMEL<br>Effects on Effects on   | Normal value of STP microorganisms           |                          |                | 10            | mg         | J/I                    |              |               |                     |
| Effects on Effects on   | ormal value for the terrestrial cor          | npartment                |                |               | 0,239      | mg                     | ı/kg         |               |                     |
| consumers workers   | ealth - Derived no-effect le                 | Effects on               | MEL            |               |            |                        |              |               |                     |
| Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Systemic Systemic Systemic   | oute of exposure                             | consumers<br>Acute local | Acute systemic | Chronic local |            | workers<br>Acute local |              | Chronic local | Chronic<br>systemic |



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| Oral       | 38 mg.   | /kg bw/d  | 6,3 mg/kg<br>bw/d  |          |                    |
|------------|----------|-----------|--------------------|----------|--------------------|
| Inhalation | 18 mg/m3 | 3,2 mg/m3 | 45 mg/m3           | 36 mg/m3 | 91 mg/m3           |
| Skin       |          |           | 0,52 mg/kg<br>bw/d |          | 1,04 mg/kg<br>bw/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 ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

### 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 I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 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.

## **SECTION 9.** Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Informatior |
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| - 1 |  |   |                    |
|-----|--|---|--------------------|
|     | Flammability   | not available   |                    |
|     | Lower explosive limit  | not available   |                    |
|     | Upper explosive limit  | not available   |                    |
|     | Flash point  | not available   |                    |
|     | Auto-ignition temperature  | not available   |                    |
|     | Decomposition temperature  | not available   |                    |
|     | рН   | 8,5 - 9,5   |                    |
|     | Kinematic viscosity  | not available   |                    |
|     | Dynamic viscosity<br>Solubility  | 250 ± 50 mPa*s<br>not available   | Temperature: 25 °C |
|     | Partition coefficient: n-octanol/water   | not available   |                    |
|     | Vapour pressure  | not available   |                    |
|     | Density and/or relative density  | not available   |                    |
|     | Relative vapour density  | not available   |                    |
|     | Particle characteristics   | not applicable  |                    |
|     | <b>9.2. Other information</b><br>9.2.1. Information with regard to physical haza | rd classes  |                    |
|     | Information not available  |   |                    |
|     | 9.2.2. Other safety characteristics  |   |                    |
|     | Explosive properties   | not classified as explosive,<br>contains no explosive<br>substances according to CLP<br>Art. (14 (2)) |                    |
|     | Oxidising properties   | No oxidizing property   |                    |

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

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

2-BROMO-2-NITROPROPAN-1,3-DIOL Decomposes on contact with: water, metals, strong bases.

MORPHOLINE On contact with: strong oxidising agents, reducing agents, strong acids, strong bases. May develop: heat.

### 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.



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### 10.4. Conditions to avoid

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

2-BROMO-2-NITROPROPAN-1,3-DIOL Avoid exposure to: light, UV rays, moisture.

### 10.5. Incompatible materials

Information not available

### 10.6. Hazardous decomposition products

2-BROMO-2-NITROPROPAN-1,3-DIOL May develop: nitric oxide, carbon oxides, hydrobromic acid.

## **SECTION 11. Toxicological information**

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.

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information Information not available Information on likely routes of exposure Information not available Delayed and immediate effects as well as chronic effects from short and long-term exposure Information not available Interactive effects Information not available ACUTE TOXICITY ATE (Inhalation) of the mixture: Not classified (no significant component) ATE (Oral) of the mixture: >2000 mg/kg ATE (Dermal) of the mixture: Not classified (no significant component) BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS LD50 (Dermal): > 2000 mg/kg rat LD50 (Oral): 1080 mg/kg rat ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHOXYLATED > 2000 mg/kg rabbit LD50 (Dermal): LD50 (Oral): > 300 mg/kg rat ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS LD50 (Dermal): > 2000 mg/kg rat LD50 (Oral): > 2000 mg/kg rat 2-BROMO-2-NITROPROPAN-1,3-DIOL LD50 (Dermal): 64 mg/kg rat 1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP STA (Dermal): (figure used for calculation of the acute toxicity estimate of the mixture) LD50 (Oral): 254 mg/kg rat LC50 (Inhalation mists/powders): 0,588 mg/l/4h rat



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MORPHOLINE LD50 (Dermal): 500 mg/kg Rabbit 1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP STA (Dermal): (figure used for calculation of the acute toxicity estimate of the mixture) LD50 (Oral): 1050 mg/kg Rat LC50 (Inhalation vapours): 35,1 mg/l/1h Rat SKIN CORROSION / IRRITATION Does not meet the classification criteria for this hazard class SERIOUS EYE DAMAGE / IRRITATION Causes serious eye damage RESPIRATORY OR SKIN SENSITISATION Does not meet the classification criteria for this hazard class Respiratory sensitization Information not available Skin sensitization Information not available GERM CELL MUTAGENICITY Does not meet the classification criteria for this hazard class CARCINOGENICITY Does not meet the classification criteria for this hazard class REPRODUCTIVE TOXICITY Does not meet the classification criteria for this hazard class Adverse effects on sexual function and fertility Information not available Adverse effects on development of the offspring Information not available Effects on or via lactation Information not available STOT - SINGLE EXPOSURE Does not meet the classification criteria for this hazard class Target organs Information not available Route of exposure Information not available STOT - REPEATED EXPOSURE Does not meet the classification criteria for this hazard class Target organs Information not available Route of exposure Information not available ASPIRATION HAZARD Does not meet the classification criteria for this hazard class

### 11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

## **SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

MORPHOLINE

LC50 - for Fish

179 mg/l/96h



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| EC50 - for Crustacea  | 45 mg/l/48h                          |
|---|--------------------------------------|
| EC50 - for Algae / Aquatic Plants                           | 51 mg/l/72h                          |
| Chronic NOEC for Algae / Aquatic Plants                     | 31 mg/l 72h                          |
|   |                                      |
| ALCOHOLS, C12-13, BRANCHED AND                              |                                      |
| LINEAR, ETHOXYLATED<br>EC50 - for Algae / Aquatic Plants    | > 1 mg/l/72h Desmodesmus subspicatus |
| EC10 for Crustacea  | > 0,1 mg/l Daphnia magna             |
|   | > 0,1 mg/ Daprina magna              |
| 2-BROMO-2-NITROPROPAN-1,3-DIOL                              |                                      |
| LC50 - for Fish   | 20 mg/l/96h Oncorhynchus mykiss      |
| EC50 - for Crustacea  | 1,6 mg/l/48h Daphnia magna           |
| EC50 - for Algae / Aquatic Plants                           | 0,25 mg/l/72h                        |
| Chronic NOEC for Algae / Aquatic Plants                     | 0,08 mg/l                            |
|   |                                      |
| BENZENESULFONIC ACID, C10-13-ALKYL                          |                                      |
| DERIVS., SODIUM SALTS                                       |                                      |
| LC50 - for Fish   | 1,67 mg/l/96h                        |
| EC50 - for Crustacea  | 2,9 mg/l/48h                         |
| EC50 - for Algae / Aquatic Plants                           | 0,91 mg/l/72h                        |
| Chronic NOEC for Fish                                       | 0,23 mg/l 72d                        |
| Chronic NOEC for Crustacea                                  | 0,5 mg/l 7d                          |
| Chronic NOEC for Algae / Aquatic Plants                     | 0,5 mg/l 96h                         |
|   |                                      |
| ALCOHOLS, C12-14, ETHOXYLATED,<br>SULFATES, SODIUM SALTS    |                                      |
| LC50 - for Fish   | > 1 mg/l/96h Danio rerio             |
| EC50 - for Crustacea  | 7,2 mg/l/48h Daphnia magna           |
| EC50 - for Algae / Aquatic Plants                           | 27 mg/l/72h Desmodesmus subspicatus  |
| Chronic NOEC for Fish                                       | 0,14 mg/l 28d Oncorhynchus mykiss    |
| Chronic NOEC for Crustacea                                  | 0,18 mg/l 21d Daphnia magna          |
| Chronic NOEC for Algae / Aquatic Plants                     | 0,93 mg/l Desmodesmus subspicatus    |
|   |                                      |
| 12.2. Persistence and degradability                         |                                      |
| MORPHOLINE  |                                      |
| Solubility in water   | 1000 - 10000 mg/l                    |
| Rapidly degradable  | 1000 10000 mg/i                      |
|   |                                      |
| ALCOHOLS, C12-13, BRANCHED AND                              |                                      |
| LINEAR, ETHOXYLATED<br>Rapidly degradable                   |                                      |
|   |                                      |
| 2-BROMO-2-NITROPROPAN-1,3-DIOL                              |                                      |
| Solubility in water   | 286000 mg/l                          |
| Rapidly degradable  |                                      |
|   |                                      |
| BENZENESULFONIC ACID, C10-13-ALKYL<br>DERIVS., SODIUM SALTS |                                      |
|   |                                      |



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Rapidly degradable

| ALCOHOLS, C12-14, ETHOXYLATED,<br>SULFATES, SODIUM SALTS<br>Rapidly degradable |         |
|--|---------|
| 12.3. Bioaccumulative potential  |         |
| MORPHOLINE   |         |
| Partition coefficient: n-octanol/water   | -2,55   |
| BCF  | < 2,8   |
| 2-BROMO-2-NITROPROPAN-1,3-DIOL   |         |
| Partition coefficient: n-octanol/water   | 0,22    |
| BCF  | 3,16    |
| BENZENESULFONIC ACID, C10-13-ALKYL<br>DERIVS., SODIUM SALTS                    |         |
| BCF  | 159     |
| 12.4. Mobility in soil   |         |
| MORPHOLINE   |         |
| Partition coefficient: soil/water  | -0,6196 |
| ALCOHOLS, C12-13, BRANCHED AND<br>LINEAR, ETHOXYLATED                          |         |
| Partition coefficient: soil/water  | 3,69    |
| ALCOHOLS, C12-14, ETHOXYLATED,<br>SULFATES, SODIUM SALTS                       |         |
| Partition coefficient: soil/water  | 0,34    |

### 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  $\geq$  than 0,1%.

### 12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

### 12.7. 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.



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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**

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.

### 14.1. UN number or ID 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. Maritime transport in bulk according to IMO instruments

Information not relevant

## **SECTION 15. Regulatory information**

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

Seveso Category - Directive 2012/18/EU: None

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

| Product<br>Point             | 3 - 40 |
|------------------------------|--------|
| Contained substance<br>Point | 75     |



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Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors not applicable

Substances in Candidate List (Art. 59 REACH) GLUTARALDEIDE REACH Reg.: 01-2119455549-26

Substances subject to authorisation (Annex XIV REACH) None

Substances subject to exportation reporting pursuant to Regulation (EU) 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.

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

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017) WGK 2: Hazard to waters

### 15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

## **SECTION 16. Other information**

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

| Flam. Liq. 3      | Flammable liquid, category 3                                       |
|-------------------|--|
| Acute Tox. 4      | Acute toxicity, category 4   |
| Skin Corr. 1B     | Skin corrosion, category 1B  |
| Eye Dam. 1        | Serious eye damage, category 1                                     |
| STOT SE 3         | Specific target organ toxicity - single exposure, category 3       |
| Aquatic Acute 1   | Hazardous to the aquatic environment, acute toxicity, category 1   |
| Aquatic Chronic 2 | Hazardous to the aquatic environment, chronic toxicity, category 2 |
| H226              | Flammable liquid and vapour.                                       |
| H302              | Harmful if swallowed.  |
| H312              | Harmful in contact with skin.                                      |
| H332              | Harmful if inhaled.  |
| H314              | Causes severe skin burns and eye damage.                           |
| H318              | Causes serious eye damage.   |
|                   |  |



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| H335 | May cause respiratory irritation.                |
|------|--|
| H400 | Very toxic to aquatic life.                      |
| H411 | Toxic to aquatic life with long lasting effects. |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 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: 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: Regulation (EC) 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: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

### GENERAL BIBLIOGRAPHY

- 1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
- Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
   Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
   Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
   Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EÚ) 2015/1221 (VII Atp. CLP) of the European Parliament
- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP) 15. Regulation (EU) 2019/521 (XII Atp. CLP)
- 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
- 17. Regulation (EU) 2019/1148
- 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
- 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP) 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
- 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- The Merck Index. 10th Edition Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website



Conforms to Reg. (EU) 878/2020

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- ECHA website

- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

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.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11. Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

01 / 03 / 08 / 09 / 11 / 12 / 15 / 16.