| FILES writes case solutions | FILA INDUSTRIA CHIMICA S.P.A. | Revision nr. 11 |
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SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name BRIO

Chemical name and synonym Universal detergent provided with spray gun

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

Intended use Universal detergent provided with spray gun.

| Identified Uses | Industrial | Professional | Consumer |
|--|--|--------------|----------|
| Uses | ✓ | ~ | ~ |
| 1.3. Details of the supplier of the safety data sheet Name Full address District and Country | FILA INDUSTRIA CHIMICA S Via Garibaldi, 58 35018 San Martino di Lupari ITALIA | | |

Tel. +39.049.9467300 Fax +39.049.9460753

e-mail address of the competent person

responsible for the Safety Data Sheet sds@filasolutions.com

1.4. Emergency telephone number

For urgent inquiries refer to TEL +39.049.9467300 (Monday –

Friday; 8.30 - 12.30 and 14.00 - 17.30)

UNITED KINGDOM: NHS Direct 111 (In England, Scotland North Ireland) 08454647

(Wales); IRELAND 018092166

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to (EU) Regulation 2015/830. Hazard classification and indication:

2.2. Label elements

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

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Safety data sheet according to regulation (CE) n. 1907/2006 (REACH), Annex II, and successive adjustments introduced by Commission Regulation (EU) no. 2015/830 According to Annex II to REACH - Regulation 2015/830

Hazard pictograms:

Signal words: --

Hazard statements:

EUH210 Safety data sheet available on request.

Precautionary statements:

--

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

Less than 5% anionic surfactants

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 x = Conc. % Classification 1272/2008 (CLP)

Propylene glycol n-propyl ether

CAS 1569-01-3 $3 \le x < 4$ Flam. Liq. 3 H226, Eye Irrit. 2 H319

EC 216-372-4 INDEX -

Reg. no. 01-2119474443-37

ETHANOLAMINE

CAS 141-43-5 0,2 ≤ x < 0,25 Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B

H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Chronic 3 H412

EC 205-483-3 INDEX 603-030-00-8

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According to Annex II to REACH - Regulation 2015/830

Reg. no. 01-2119486455-28

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

Not specifically necessary. Observance of good industrial hygiene is recommended.

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 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

| urtera cura solution | FILA INDUSTRIA CHIMICA S.P.A. | Revision nr. 11 |
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According to Annex II to REACH - Regulation 2015/830

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. 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

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. 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 well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of lignition. 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:

CZE Česká Republika

Nařízení vlády č. 246/2018 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů



Deutschland

Magyarország

Norge

România

Slovensko

Slovenija

DEU

DNK

HUN

NOR

ROU

SVK

SVN

SWE

EU

According to Annex II to REACH - Regulation 2015/830

| TRGS 900 (Fassung 07.06.2018) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte |
|---|
| Pokandtagralas am andring of bakandtagralas am grangovardier for staffer og materials |

Danmark ndring af bekendtgørelse om grænseværdier for stoffer og materialer1- BEK nr 655

af 31/05/2018

ESP LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2008 NIPO: 211-España

08-011-5

FIN HTP-VÄRDEN 2018. Koncentrationer som befunnits skadliga. SOCIAL- OCH Suomi HÄLSOVÅRDSMINISTERIETS PUBLIKATIONER 10/2018

FRA France Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS GBR United Kingdom EH40/2005 Workplace exposure limits (Third edition, published 2018)

GRC Ελλάδα ΕΦΗΜΕΡΙΔΑ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 152 - 21 Αυγούστου 2018

HRV Hrvatska Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti

i biološkim graničnim vrijednostima (NN 91/18)

Replaced revision:10 (Dated: 07/12/2016)

A pénzügyminiszter 7/2018. (VIII. 29.) PM rendelete a munkahelyek kémiai biztonságáról szóló 25/2000.

(IX. 30.) EüM-

SZCSM együttes rendelet módosításáról DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017

NLD Nederland Regeling van de Staatssecretaris van Sociale Zaken en Werkgelegenheid van 13 juli 2018, 2018-

0000118517 tot wijziging van de Arbeidsomstandighedenregeling in verband met de implementatie van Richtlijn 2017/164 in Bijlage XIII

Fastsatt av Arbeids- og sosialdepartementet 21. august 2018 med hjemmel i lov 17. juni 2005 nr. 62 om arbeidsmiljø, arbeidstid, stillingsvern mv. (arbeidsmiljøloven) § 1-3, § 1-4 og § 4-5 ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r POL Polska PRT Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos Portugal

trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018

HOTĂRÂRE nr. 584 din 2 august 2018 pentru modificarea Hotărârii Guvernului nr. 1.218/2006 privind

stabilirea cerințelor minime de securitate și sănătate în muncă pentru asigurarea protecției lucrătorilor

nariadenie vlády Slovenskej republiky č. 35/2006 Z. z. o ochrane zamestnancov pred rizikami súvisiacimi

s expozíciou chemickým faktorom pri práci v znení neskorších predpisov

Uradni list Republike Slovenije 04.06.2015 (1602) - Pravilnik o spremembah in dopolnitvah Pravilnika o

varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu

Sverige OEL EU

Hygieniska gränsvärden, AFS 2018:1
Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.

TLV-ACGIH **ACGIH 2019**

| 1-propoxypropan-2-ol | | | |
|--|--------|-------|---|
| Predicted no-effect concentration - PNEC | | | |
| Normal value in fresh water | 0,1 | mg/l | |
| Normal value in marine water | 0,01 | mg/l | |
| Normal value for fresh water sediment | 0,386 | mg/kg | _ |
| Normal value for marine water sediment | 0,0386 | mg/kg | |
| Normal value for water, intermittent release | 1 | mg/l | _ |
| Normal value of STP microorganisms | 4 | mg/l | _ |
| Normal value for the terrestrial compartment | 0,0185 | mg/kg | |

| Health - Derived no-eff | ect level - DNEL / [| OMEL | | | | | | |
|-------------------------|----------------------|----------------|---------------|------------------|-------------|----------------|---------------|------------------|
| | Effects on | | | | Effects on | | | |
| | consumers | | | | workers | | | |
| Route of exposure | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Inhalation | | | VND | 26 mg/m3 | | | VND | 217 mg/m3 |
| Skin | | | VND | 2.2 mg/kg/d | | | VND | 9 ma/ka/d |



Oral

Inhalation

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VND

3,3 mg/m3

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According to Annex II to REACH - Regulation 2015/830

| May | ETHANOLAMINE Threshold Limit Value | | | | | | | | |
|--|--|----------------|----------------|---------------|------------|--------|------------|---------------|--|
| TLV CZE 2.5 1,0025 7.5 3,0075 MAK DEU 0.51 0.2 0.51 0.2 MAK DEU 0.51 0.2 0.51 0.2 LTLV DNK 2.5 1 7.5 3 SKIN E LTLV DNK 2.5 1 7.6 3 SKIN E LTLP FIN 2.5 1 7.6 3 SKIN E LTLP FRA 2.5 1 7.6 3 SKIN E LTLP FRA 2.5 1 7.6 3 SKIN E LTLP GRC 2.5 1 7.6 3 SKIN E SVIKEL GBR 2.5 1 7.6 3 SKIN E SVIKIN TLV GRC 2.5 1 7.6 3 SKIN E SVIKIN TLV GRC 2.5 1 7.6 3 SKIN E LTLV GRC 2.5 1 7.6 SKIN E SVIKIN TLV GRC 2.5 1 7.6 SKIN E LTLV NOR 2.5 1 7.6 SKIN E LTLV NOW 2.5 1 7.6 SKIN E LTLV ROU 2.5 SKIN E LTLV ROU 2.5 SKIN E LTLV ROU 2.5 SKIN SKIN SKIN E LTLV ROU 2.5 SKIN SKIN SKIN E LTLV ROU 2.5 SKIN SKIN SKIN SKIN E LTLV ROU 2.5 SKIN SKIN SKIN SKIN SKIN SKIN SKIN SKIN | Туре | Country | TWA/8h | | STEL/15min | 1 | | | |
| DEU | | | mg/m3 | ppm | mg/m3 | ppm | | | |
| SKIN E | TLV | CZE | 2,5 | 1,0025 | 7,5 | 3,0075 | | | |
| Second Color Seco | MAK | DEU | 0,51 | 0,2 | 0,51 | 0,2 | | | |
| TTP FIN 2,5 1 7,6 3 SKIN VEL GBR 2,5 1 7,6 3 SKIN VEL GBR 2,5 1 7,6 3 SKIN VEL GBR 2,5 1 7,6 3 SKIN VEL GRC SKIN VEL | TLV | DNK | 2,5 | 1 | | | SKIN | Е | |
| Value | VLA | ESP | 2,5 | 1 | 7,5 | 3 | SKIN | | |
| MEL GBR 2,5 | HTP | FIN | 2,5 | 1 | 7,6 | 3 | SKIN | | |
| File | VLEP | FRA | 2,5 | 1 | 7,6 | 3 | SKIN | | |
| SVI/KGV | WEL | GBR | 2,5 | 1 | 7,6 | 3 | SKIN | | |
| HUN 2,5 | TLV | GRC | 2,5 | 1 | 7,6 | 3 | | | |
| TA | GVI/KGVI | HRV | 2,5 | 1 | 7,6 | 3 | SKIN | | |
| NLD | AK | HUN | 2,5 | | 7,6 | | SKIN | | |
| NOR | VLEP | ITA | 2,5 | 1 | 7,6 | 3 | SKIN | | |
| NDS/NDSCh POL 2,5 7,5 SKIN VIE PRT 2,5 1 7,6 3 SKIN VIE SVK 2,5 1 7,6 3 SKIN VIV SVN 2,5 1 7,6 3 SKIN VIV SVN 2,5 1 7,5 3 SKIN VIV SVN 2,5 1 7,5 3 SKIN VIV SVR 2,5 1 7,5 3 SKIN VIV SVR 2,5 1 7,5 3 SKIN VIE PRELE EU 2,5 1 7,6 | TGG | NLD | 2,5 | | 7,6 | | SKIN | | |
| VIE | TLV | NOR | 2,5 | 1 | | | SKIN | | |
| ROU 2,5 | NDS/NDSCh | POL | 2,5 | | 7,5 | | SKIN | | |
| NPEL SVK 2,5 1 7,6 3 SKIN NVV SVN 2,5 1 7,5 3 SKIN NGV/KGV SWE 2,5 1 7,5 3 SKIN DEL EU 2,5 1 7,6 3 SKIN TLV-ACGIH 7,5 3 SKIN TLV-ACGIH 7,5 3 SKIN Predicted no-effect concentration - PNEC Normal value in fresh water 0,085 mg/l Normal value in marine water 0,085 mg/l Normal value for fresh water sediment 0,434 mg/kg Normal value for marine water sediment 0,0434 mg/kg Normal value for water, intermittent release 0,028 mg/l Normal value of STP microorganisms 100 mg/l Health - Derived no-effect level - DNEL / DMEL Effects on consumers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | VLE | PRT | 2,5 | 1 | 7,6 | 3 | SKIN | | |
| Normal value for fresh water sediment 0,085 mg/l | TLV | ROU | 2,5 | 1 | 7,6 | 3 | SKIN | | |
| NGV/KGV SWE 2,5 1 7,5 3 SKIN DEL EU 2,5 1 7,6 3 SKIN TLV-ACGIH 7,5 3 15 6 Predicted no-effect concentration - PNEC Normal value in fresh water 0,085 mg/l Normal value in marine water 0,0085 mg/l Normal value for fresh water sediment 0,434 mg/kg Normal value for marine water 0,0434 mg/kg Normal value for water, intermittent release 0,028 mg/l Normal value of STP microorganisms 100 mg/l Health - Derived no-effect level - DNEL / DMEL Effects on consumers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | NPEL | SVK | 2,5 | 1 | 7,6 | 3 | SKIN | | |
| DEL EU 2,5 1 7,6 3 SKIN | MV | SVN | 2,5 | 1 | 7,5 | 3 | SKIN | | |
| Predicted no-effect concentration - PNEC Normal value in fresh water Normal value in marine water Normal value for fresh water sediment Normal value for marine water sediment Normal value for water, intermittent release Normal value of STP microorganisms Health - Derived no-effect level - DNEL / DMEL Effects on consumers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | NGV/KGV | SWE | 2,5 | 1 | 7,5 | 3 | SKIN | | |
| Predicted no-effect concentration - PNEC Normal value in fresh water 0,085 mg/l Normal value in marine water 0,0085 mg/l Normal value for fresh water sediment 0,434 mg/kg Normal value for marine water sediment 0,0434 mg/kg Normal value for water, intermittent release 0,028 mg/l Normal value of STP microorganisms 100 mg/l Health - Derived no-effect level - DNEL / DMEL Effects on consumers Effects on workers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | OEL | EU | 2,5 | 1 | 7,6 | 3 | SKIN | | |
| Normal value in fresh water 0,085 mg/l Normal value in marine water 0,0085 mg/l Normal value for fresh water sediment 0,434 mg/kg Normal value for marine water sediment 0,0434 mg/kg Normal value for water, intermittent release 0,028 mg/l Normal value of STP microorganisms 100 mg/l Health - Derived no-effect level - DNEL / DMEL Effects on consumers Effects on workers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | TLV-ACGIH | | 7,5 | 3 | 15 | 6 | | | |
| Normal value in marine water 0,0085 mg/l Normal value for fresh water sediment 0,434 mg/kg Normal value for marine water sediment 0,0434 mg/kg Normal value for water, intermittent release 0,028 mg/l Normal value of STP microorganisms 100 mg/l Health - Derived no-effect level - DNEL / DMEL Effects on consumers Effects on workers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | Predicted no-effect concentration | n - PNEC | | | | | | | |
| Normal value for fresh water sediment 0,434 mg/kg Normal value for marine water sediment 0,0434 mg/kg Normal value for water, intermittent release 0,028 mg/l Normal value of STP microorganisms 100 mg/l Health - Derived no-effect level - DNEL / DMEL Effects on consumers Effects on workers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | Normal value in fresh water | | | | 0,085 | mg/ | / I | | |
| Normal value for marine water sediment 0,0434 mg/kg Normal value for water, intermittent release 0,028 mg/l Normal value of STP microorganisms 100 mg/l Health - Derived no-effect level - DNEL / DMEL Effects on consumers Effects on workers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | Normal value in marine water | | | | 0,0085 | mg/ | /I | | |
| Normal value for water, intermittent release 0,028 mg/l Normal value of STP microorganisms 100 mg/l Health - Derived no-effect level - DNEL / DMEL Effects on | Normal value for fresh water sec | diment | | | 0,434 | mg/ | /kg | | |
| Normal value of STP microorganisms 100 mg/l Health - Derived no-effect level - DNEL / DMEL Effects on consumers Consumers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | Normal value for marine water s | ediment | | | 0,0434 | mg/ | /kg | | |
| Health - Derived no-effect level - DNEL / DMEL Effects on consumers Effects on workers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | Normal value for water, intermittent release | | 0,028 | mg/ | /I | | | | |
| Effects on Effects on workers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | Normal value of STP microorgar | nisms | | | 100 | mg/ | /I | | |
| consumers workers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | Health - Derived no-effect | level - DNEL / | DMEL | | | | | | |
| Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic | | | | | | | | | |
| | Route of exposure | | Acute systemic | Chronic local | | | | Chronic local | |

VND

2 mg/m3

3,75 mg/kg/d VND

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According to Annex II to REACH - Regulation 2015/830

 Skin
 VND
 0,24 mg/kg/d
 VND
 1 mg/kg/d

Legend:

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

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

TLV of solvent mixture: 7,5 mg/m3

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.

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.



рΗ

According to Annex II to REACH - Regulation 2015/830

11.0

0,998

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance liquid

Colour colourless

Odour Alcoholic

Odour threshold Not available

Melting point / freezing point Not available Not available Initial boiling point Boiling range Not available Flash point > 93 °C **Evaporation Rate** Not available Flammability of solids and gases not applicable Lower inflammability limit Not available Upper inflammability limit Not available Lower explosive limit Not available Not available Upper explosive limit Not available Vapour pressure Vapour density Not available

Solubility Readily soluble
Partition coefficient: n-octanol/water Not available
Auto-ignition temperature Not available
Decomposition temperature Not available
Viscosity Not available
Explosive properties not applicable
Oxidising properties not applicable

9.2. Other information

Relative density

VOC (Directive 2010/75/EC) : 3,70 % - 36,93 g/litre

SECTION 10. Stability and reactivity

10.1. Reactivity

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



According to Annex II to REACH - Regulation 2015/830

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.

ETHANOLAMINE

May react dangerously with: acrylonitrile,chloroepoxypropane,chlorosulphuric acid,hydrogen chloride,iron-sulphur compounds,acetic acid,acetic anhydride,mesityl oxide,nitric acid,sulphuric acid,strong acids,vinyl acetate,cellulose nitrate.

10.4. Conditions to avoid

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

ETHANOLAMINE

Avoid exposure to: air, sources of heat.

10.5. Incompatible materials

Oxidizing agents. Strong acids and bases.

ETHANOLAMINE

Incompatible with: iron, strong acids, strong oxidants.

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.

ETHANOLAMINE

May develop: nitric oxide,carbon oxides.

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.



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Safety data sheet according to regulation (CE) n. 1907/2006 (REACH), Annex II, and successive adjustments introduced by Commission Regulation (EU) no. 2015/830 According to Annex II to REACH - Regulation 2015/830

11.1. Information on toxicological effects

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

LC50 (Inhalation) of the mixture:
Not classified (no significant component)
LD50 (Oral) of the mixture:
Not classified (no significant component)
LD50 (Dermal) of the mixture:
Not classified (no significant component)

1-propoxypropan-2-ol

LD50 (Oral) > 2000 mg/kg Rat

LD50 (Dermal) > 2000 mg/kg Rat

ETHANOLAMINE

LD50 (Oral) 1515 mg/kg rat male/female

LD50 (Dermal) 2504 mg/kg male rabbit

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class



According to Annex II to REACH - Regulation 2015/830

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

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

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity

1-propoxypropan-2-ol

LC50 - for Fish

EC50 - for Crustacea

- > 100 mg/l/96h Rainbow Trout
- > 100 mg/l/48h Daphnia Magna

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ETHANOLAMINE

LC50 - for Fish 349 mg/l/96h Cyprinus carpio EC50 - for Crustacea 65 mg/l/48h Daphnia Magna

EC50 - for Algae / Aquatic Plants 2,1 mg/l/72h Pseudokirchnerella subcapitata

Chronic NOEC for Fish 1,24 mg/l 41d Oryzias latipes

12.2. Persistence and degradability

1-propoxypropan-2-ol Rapidly degradable >70% 10d

ETHANOLAMINE

Solubility in water 1000 - 10000 mg/l

Rapidly degradable >70% 28d

12.3. Bioaccumulative potential

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

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| Disposal must be performed through a CONTAMINATED PACKAGING | esidues should be considered special non-hazardous waste. In authorised waste management firm, in compliance with national and locovered or disposed of in compliance with national waste management regular | _ |
| SECTION 14. Transport i | nformation | |
| | | |
| | current provisions of the Code of International Carriage of Dangerous Go Goods Code (IMDG), and of the International Air Transport Association (IA | |
| 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

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| Not applicable | | |
| 14.7. Transport in bulk according to | Annex II of Marpol and the IBC Code | |
| Information not relevant | | |
| SECTION 15. Regulatory | information | |
| 15.1. Safety, health and environme | ental regulations/legislation specific for the substance or mixture | |
| Seveso Category - Directive 2012/18/8 | EC: None | |
| Restrictions relating to the product or of | contained substances pursuant to Annex XVII to EC Regulation 1907/2006 | $\hat{\Sigma}$ |
| Product Point | 40 | |
| Substances in Candidate List (Art. 59 | REACH) | |
| On the basis of available data, the pro | duct does not contain any SVHC in percentage greater than 0,1%. | |
| Substances subject to authorisation (A | nnex XIV REACH) | |
| None | | |
| Substances subject to exportation repo | orting pursuant to (EC) Reg. 649/2012: | |
| None | | |
| Substances subject to the Rotterdam (| Convention: | |
| None | | |
| Substances subject to the Stockholm (| Convention: | |
| None | | |
| Healthcare controls | | |

Information not available

Regulation (EC) No. 648/2004



According to Annex II to REACH - Regulation 2015/830

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

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

15.2. Chemical safety assessment

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

Propylene glycol n-propyl ether

ETHANOLAMINE

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 Irrit. 2 Eye irritation, category 2

STOT SE 3 Specific target organ toxicity - single exposure, category 3

Aquatic Chronic 3 Hazardous to the aquatic environment, chronic toxicity, category 3

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.

H319 Causes serious eye irritation.H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

EUH210 Safety data sheet available on request.

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

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- 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. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
- 4. Regulation (EU) 2015/830 of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EU) 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) 2018/1480 (XIII 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
- 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.

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