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SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name

Čistilo za kamnite površine

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

Relevant identified uses

Cleaning agent.

Uses advised against

No information.

1.3. Details of the supplier of the safety data sheet

Supplier

Plastik SI, proizvodnja plastičnih izdelkov, d.o.o. Address: Kolodvorska cesta 9, 5213 Kanal, Slovenia Phone: +386 (0)5 3302600 Fax: +386 (0)5 3302620 E-mail: info@plastik.si

1.4. Emergency telephone number

Emergency

112

<u>Supplier</u> +386 (0)5 3302600

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Eye Dam. 1; H318 Causes serious eye damage. Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects. chemius.net/E2Rad



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2.2 Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]



Signal word: Danger

- H318 Causes serious eye damage.
- H412 Harmful to aquatic life with long lasting effects.
- EUH208 Contains (R)-p-mentha-1,8-diene. May produce an allergic reaction.
- P102 Keep out of reach of children.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/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/doctor.
- P501 Dispose of contents/container in accordance with national regulation.

2.2.2. Contains:

alcohols, C12-14, ethoxylated, sulfates, sodium salts (CAS: 68891-38-3, EC: 500-234-8)

2.2.3. Special provisions

Special hazards are not known or expected.

2.3. Other hazards

No information.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

For mixtures see 3.2.

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3.2. Mixtures

| Name | CAS % EC Index | | Classification according to Regulation (EC) No 1272/2008 (CLP) | Specific Conc. Limits | REACH Registration No. | |
|---|--|----------|---|---|---------------------------|--|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts | 68891-38-3 500-234-8 - | 3-<5 | Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412 | Eye Dam. 1; H318: $C \ge 10 \%$ Eye Irrit. 2; H319: 5 $\% \le C < 10 \%$ | - | |
| ethanol | 64-17-5 200-578-6 603-002-00-5 | 4-5 | Flam. Liq. 2; H225 | | 01-2119457610-43 | |
| 2-(2-butoxyethoxy)ethanol | 112-34-5 203-961-6 603-096-00-8 | 3,5-4 | Eye Irrit. 2; H319 | | 01-2119475104-44 | |
| tetrapotassium pyrophosphate | 7320-34-5 230-785-7 - | 1,5-2 | Eye Irrit. 2; H319 | | - | |
| (R)-p-mentha-1,8-diene [C] | 5989-27-5 227-813-5 601-029-00-7 | 0,3-0,5 | Flam. Liq. 3; H226 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | | 01-2119529223-47 | |
| citric acid, monohydrate | 5949-29-1 201-069-1 - | 0,1-0,4 | Eye Irrit. 2; H319 | | - | |
| isopropanol | 67-63-0 200-661-7 603-117-00-0 | 0,05-0,1 | Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 | | 01-2119457558-25 | |

Notes for substances:

Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers.

In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General notes

С

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Following inhalation

Remove patient to fresh air - move out of dangerous area. If symptoms develop and persist, seek medical attention.

Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. If symptoms develop and persist, seek medical attention.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. After initial flushing, remove any contact lenses and continue flushing. Consult a physician immediately!

Following ingestion

Do not induce vomiting! Rinse mouth thoroughly with water. In case of doubt or if feeling unwell seek medical help. Show the physician the safety data sheet or label.

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

Inhalation

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation. Cough, Sneezing.

Skin contact

Contact with skin may cause irritation (redness, itching). May cause sensitisation by skin contact (itching, redness, rashes).

Eye contact

Risk of serious permanent damage to eyes. Discomfort or pain, excessive blinking, lacrimation and redness, swelling of the conjunctiva.

Ingestion

May cause nausea/vomiting and diarrhea. May cause abdominal discomfort.

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

Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of a fire toxic gases can be generated; do not inhale gases/smoke. In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO₂).

5.3. Advice for firefighters

Protective actions

In case of fire do not breathe fumes/gases. Cool containers at risk with water spray. If possible remove containers from endangered area. Move undamaged containers from immediate hazard area if it can be done safely.

Special protective equipment for firefighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

Additional information

Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage system. Contaminated firefighting water and fire residues must be disposed of in accordance with the local regulations.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

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Emergency procedures

Ensure adequate ventilation. No action shall be taken involving any personal risk or without suitable training. Evacuate the danger zone. Avoid contact with skin and eyes. Remove unprotected and untrained people away from danger.

6.1.2. For emergency responders

During intervention, use personal protective equipment (Section 8).

6.2. Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental large entry into water or ground occurs, inform responsible authorities.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Stem the spill if this does not pose risks.

6.3.2. For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. In case of bigger spill, dam the spillage, pump the liquid into appropriate labelled containers, absorb a residue with absorbent material and dispose of according to local regulations. Dispose in accordance with applicable regulations (see Section 13). After cleaning, wash residues with plenty of water. Collect and dispose of contaminated washing water.

6.3.3. Other information

6.4. Reference to other sections

See also Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Protective measures

Measures to prevent fire

Ensure adequate ventilation.

Measures to prevent aerosol and dust generation

Ensure adequate ventilation.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

7.1.2. Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Wear suitable protective equipment; see Section 8. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Technical measures and storage conditions

Store in accordance with local regulations. Keep in a cool, dry and well ventilated place. Keep in tightly closed container. Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children. Keep unauthorized personnel away.

7.2.2. Packaging materials

7.2.3. Requirements for storage rooms and vessels

Keep in tightly closed containers. Do not store in unlabelled containers. Keep the packaging tightly closed and sealed until use.

7.2.4. Storage class

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7.2.5. Further information on storage conditions

7.3. Specific end use(s)

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Recommendations

Industrial sector specific solutions

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Occupational exposure limit values

| Name (CAS) | Limit values | | Short-term e | xposure limit | Remarks | Biological Tolerance Values |
|---------------------------------------|----------------------------|-------------------|----------------------------|-------------------|---------|------------------------------------|
| | ml/m ³ (ppm) | mg/m ³ | ml/m ³ (ppm) | mg/m ³ | | |
| Propan-2-ol (67-63-0) | 400 | 999 | 500 | 1250 | | |
| Ethanol (64-17-5) | 1000 | 1920 | | | | |
| 2-Methylpropan-2-ol (75-65-0) | 100 | 308 | 150 | 462 | | |
| 2-(2-Butoxyethoxy) ethanol (112-34-5) | 10 | 67,5 | 15 | 101,2 | | |

8.1.2. Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 482:2012+A1:2015 Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values.

8.1.3. DNEL/DMEL values

For components

| Name | Туре | Exposure route | Exposure frequency | Value | Remark |
|--|----------|-------------------|-------------------------------|------------------------|--------------------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | Worker | dermal | long term (systemic effects) | 2750 mg/kg bw/day | |
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | Worker | inhalation | long term (systemic effects) | 175 mg/m ³ | |
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | Consumer | dermal | long term (systemic effects) | 1650 mg/kg bw/day | |
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | Consumer | oral | long term (systemic effects) | 15 mg/kg bw/day | |
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | Consumer | inhalation | long term (systemic effects) | 52 mg/m³ | |
| ethanol (64-17-5) | Worker | inhalation | short term (systemic effects) | 1900 mg/m ³ | |
| ethanol (64-17-5) | Worker | inhalation | long term (systemic effects) | 950 mg/m ³ | continuous |
| ethanol (64-17-5) | Worker | dermal | long term (systemic effects) | 343 mg/kg | 24 h, continous |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | Worker | inhalation | long term (systemic effects) | 67,5 mg/m ³ | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | Worker | inhalation | long term (local effects) | 67,5 mg/m³ | |

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| 2-(2-butoxyethoxy)ethanol (112-34-5) | Worker | inhalation | short term (local effects) | 101,2 mg/m ³ |
|--|----------|------------|-------------------------------|-------------------------|
| 2-(2-butoxyethoxy)ethanol (112-34-5) | Worker | dermal | long term (systemic effects) | 83 mg/kg bw/day |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | Consumer | inhalation | long term (systemic effects) | 40,5 mg/m ³ |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | Consumer | inhalation | long term (local effects) | 40,5 mg/m ³ |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | Consumer | inhalation | short term (local effects) | 60,7 mg/m ³ |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | Consumer | dermal | long term (systemic effects) | 50 mg/kg bw/day |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | Consumer | oral | long term (systemic effects) | 5 mg/kg bw/day |
| tetrapotassium pyrophosphate (7320-34-5) | Worker | inhalation | long term (systemic effects) | 2,79 mg/m ³ |
| tetrapotassium pyrophosphate (7320-34-5) | Consumer | inhalation | long term (systemic effects) | 0,68 mg/l |
| tetrapotassium pyrophosphate (7320-34-5) | Consumer | oral | long term (systemic effects) | 70 mg/kg |
| pin-2(3)-ene (80-56-8) | Worker | inhalation | long term (systemic effects) | 5,98 mg/m ³ |
| linalool (78-70-6) | Worker | inhalation | long term (systemic effects) | 2,8 mg/m ³ |
| linalool (78-70-6) | Worker | inhalation | short term (systemic effects) | 16,5 mg/m³ |
| linalool (78-70-6) | Worker | dermal | long term (systemic effects) | 2,5 mg/kg bw/day |
| linalool (78-70-6) | Worker | dermal | short term (systemic effects) | 5 mg/kg bw/day |
| linalool (78-70-6) | Worker | dermal | long term (local effects) | 15 mg/kg bw/day |
| linalool (78-70-6) | Worker | dermal | short term (local effects) | 15 mg/cm ² |
| linalool (78-70-6) | Consumer | inhalation | long term (systemic effects) | 0,7 mg/m ³ |
| linalool (78-70-6) | Consumer | inhalation | short term (systemic effects) | 4,1 mg/m ³ |
| linalool (78-70-6) | Consumer | dermal | long term (systemic effects) | 1,25 mg/kg bw/day |
| linalool (78-70-6) | Consumer | dermal | short term (systemic effects) | 2,5 mg/kg bw |
| linalool (78-70-6) | Consumer | dermal | long term (local effects) | 15 mg/cm ² |
| linalool (78-70-6) | Consumer | dermal | short term (local effects) | 15 mg/cm ² |
| linalool (78-70-6) | Consumer | oral | long term (systemic effects) | 0,2 mg/kg bw/day |
| linalool (78-70-6) | Consumer | oral | short term (systemic effects) | 1,2 mg/kg bw |
| (R)-p-mentha-1,8-diene (5989-27-5) | Worker | dermal | short term (local effects) | 222 µg/cm² |
| (R)-p-mentha-1,8-diene (5989-27-5) | Worker | inhalation | long term (systemic effects) | 33,3 mg/m ³ |

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| (R)-p-mentha-1,8-diene (5989-27-5) | Consumer | dermal | short term (local effects) | 111 µg/cm ² |
|------------------------------------|----------|------------|------------------------------|------------------------|
| (R)-p-mentha-1,8-diene (5989-27-5) | Consumer | inhalation | long term (systemic effects) | 8,33 mg/m ³ |
| (R)-p-mentha-1,8-diene (5989-27-5) | Consumer | oral | long term (systemic effects) | 4,76 mg/kg |
| isopropanol (67-63-0) | Worker | dermal | long term (systemic effects) | 888 mg/kg bw/day |
| isopropanol (67-63-0) | Worker | inhalation | long term (systemic effects) | 500 mg/m ³ |
| isopropanol (67-63-0) | Consumer | dermal | long term (systemic effects) | 319 mg/kg bw/day |
| isopropanol (67-63-0) | Consumer | inhalation | long term (systemic effects) | 89 mg/m ³ |
| isopropanol (67-63-0) | Consumer | oral | long term (systemic effects) | 26 mg/kg bw/day |

8.1.4. PNEC values

For components

| Name | Exposure route | Value | Remark |
|--|-----------------------------|-----------------|-----------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | fresh water | 0,24 mg/L | |
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | soil | 7,5 mg/kg | dry weigh |
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | water treatment plant | 10 g/L | |
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | marine water | 0,024 mg/L | |
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | marine water sediment | 0,092 mg/kg | |
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | water, intermittent release | 0,071 mg/L | |
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | fresh water sediment | 0,917 mg/L | |
| ethanol (64-17-5) | marine water | 0,79 mg/L | |
| ethanol (64-17-5) | fresh water | 0,96 mg/L | |
| ethanol (64-17-5) | fresh water sediment | 3,6 mg/kg | 24 h |
| ethanol (64-17-5) | marine water sediment | 2,9 mg/kg | 24 h |
| ethanol (64-17-5) | soil | 0,63 mg/kg | 24 h |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | fresh water | 1,1 mg/L | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | marine water | 0,11 mg/L | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | fresh water sediment | 4,4 mg/L | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | marine water sediment | 0,44 mg/L | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | soil | 0,32 mg/L | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | water treatment plant | 200 mg/L | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | food chain | 56 mg/kg feed | oral |
| tetrapotassium pyrophosphate (7320-34-5) | fresh water | 0,05 mg/L | |
| tetrapotassium pyrophosphate (7320-34-5) | marine water | 0,005 mg/L | |
| tetrapotassium pyrophosphate (7320-34-5) | water treatment plant | 50 mg/L | |
| tetrapotassium pyrophosphate (7320-34-5) | water, intermittent release | 0,5 mg/L | |
| pin-2(3)-ene (80-56-8) | fresh water | 0,004 mg/L | |
| pin-2(3)-ene (80-56-8) | marine water | 0,0004 mg/L | |
| pin-2(3)-ene (80-56-8) | fresh water sediment | 1,033 mg/kg dwt | |
| pin-2(3)-ene (80-56-8) | marine water sediment | 0,103 mg/kg dwt | |
| pin-2(3)-ene (80-56-8) | soil | 0,539 mg/kg dwt | |
| pin-2(3)-ene (80-56-8) | water treatment plant | 3,26 mg/L | |

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| linalool (78-70-6) | fresh water | 0,2 mg/L | |
|--------------------------------------|-----------------------------|-----------------|-------------|
| linalool (78-70-6) | water, intermittent release | 2 mg/L | fresh water |
| linalool (78-70-6) | marine water | 0,02 mg/L | |
| linalool (78-70-6) | water treatment plant | 10 mg/L | |
| linalool (78-70-6) | marine water sediment | 0,222 mg/kg dwt | |
| linalool (78-70-6) | fresh water sediment | 2,22 mg/kg dwt | |
| linalool (78-70-6) | soil | 0,327 mg/kg dwt | |
| (R)-p-mentha-1,8-diene (5989-27-5) | fresh water | 5,4 µg/l | |
| (R)-p-mentha-1,8-diene (5989-27-5) | marine water | 0,54 µg/l | |
| (R)-p-mentha-1,8-diene (5989-27-5) | water treatment plant | 1,8 mg/L | |
| (R)-p-mentha-1,8-diene (5989-27-5) | marine water sediment | 0,13 mg/kg | dry weight |
| (R)-p-mentha-1,8-diene (5989-27-5) | fresh water sediment | 1,32 mg/kg | dry weight |
| (R)-p-mentha-1,8-diene (5989-27-5) | soil | 0,262 mg/kg | dry weight |
| (R)-p-mentha-1,8-diene (5989-27-5) | food chain | 3,33 mg/kg | oral |
| citric acid, monohydrate (5949-29-1) | fresh water | 0,44 mg/L | |
| citric acid, monohydrate (5949-29-1) | marine water | 0,044 mg/L | |
| citric acid, monohydrate (5949-29-1) | fresh water sediment | 3,46 mg/kg | |
| citric acid, monohydrate (5949-29-1) | marine water sediment | 34,6 mg/kg | |
| citric acid, monohydrate (5949-29-1) | soil | 33,1 mg/kg | |
| isopropanol (67-63-0) | fresh water | 140,9 mg/L | |
| isopropanol (67-63-0) | marine water | 140,9 mg/L | |
| isopropanol (67-63-0) | water, intermittent release | 140,9 mg/L | |
| tert-butyl alcohol (75-65-0) | water treatment plant | 690 mg/L | |
| tert-butyl alcohol (75-65-0) | soil | 1 mg/kg | |
| tert-butyl alcohol (75-65-0) | water, intermittent release | 9,33 mg/L | |
| tert-butyl alcohol (75-65-0) | food chain | 88700000 g/kg | oral |
| tert-butyl alcohol (75-65-0) | fresh water | 6,64 mg/L | |
| tert-butyl alcohol (75-65-0) | marine water | 0,664 mg/L | |
| tert-butyl alcohol (75-65-0) | fresh water sediment | 5,8 mg/kg | |

8.2. Exposure controls

8.2.1. Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Handle in accordance with good industrial hygiene and safety practice. Use good personal hygiene practices – wash hands at breaks and when done working with material. Avoid contact with eyes and skin. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols. Keep away from foodstuffs, beverages and feed. Appropriate technical measures to reduce exposure of workers must be chosen depending on the specific use of the product and the resulting risk of exposure at the workplace. If technical measures to reduce workers' exposure are not sufficient, and the limit values of hazardous substances in the air are exceeded, it is necessary to use personal protective equipment. Personal protective equipment must be CE marked, showing that it complies with applicable standards. The personal protective equipment is required only for professional use or for large packs (not for domestic packages). For consumer use, please follow the recommendations appearing on the product label.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. Keep eyewash bottles or personal eyewash units available at the workplace.

Technical measures to prevent exposure

Good ventilation. Keep away from food, drink and animal feeding stuffs.

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8.2.2. Personal protective equipment

Eye and face protection

Safety glasses with side protection (EN 166).

Hand protection

Protective gloves (EN 374). To choose the appropriate protective gloves, consult the protective glove manufacturer. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The product is a preparation of several substances, the resistance of glove materials cannot be predicted and must therefore be checked before use.

Skin protection

Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345).

Respiratory protection

Not needed under normal use and adequate ventilation. In case of insufficient ventilation wear mask with filter A2-P2.

Thermal hazards

8.2.3. Environmental exposure controls

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| ŀ | • | Physical state: | liquid |
|---|---|-----------------|------------|
| ŀ | • | Colour: | colourless |
| ŀ | • | Odour: | lemon |

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Important health, safety and environmental information

| - | рН | 6,5 – 8,5, conc. 1 % (alcohols, C12-14, ethoxylated, sulfates, sodium salts) 7 (ethanol) |
|---|-------------------------------------|--|
| • | Melting point/freezing point | No information. |
| • | Initial boiling point/boiling range | > 100 °C (alcohols, C12-14, ethoxylated, sulfates, sodium salts) 78 °C (ethanol) |
| • | Flash point | > 100 °C (alcohols, C12-14, ethoxylated, sulfates, sodium salts) 13,7 °C (ethanol) |
| • | Evaporation rate | No information. |
| • | Flammability (solid, gas) | No information. |
| | Explosion limits (vol%) | No information. |
| | Vapour pressure | No information. |
| • | Vapour density | No information. |
| • | Density | Density : ca. 1 g/cm ³ at 20 °C |
| • | Solubility | Water: at 20 °C soluble; alcohols, C12-14, ethoxylated, sulfates, sodium salts 100 % (ethanol) |
| | Partition coefficient | No information. |
| | Auto-ignition temperature | No information. |
| | Decomposition temperature | No information. |
| | Viscosity | No information. |
| | Explosive properties | No information. |
| | Oxidising properties | No information. |

9.2. Other information

- Remarks:

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

Stable under recommended transport or storage conditions.

10.2. Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3. Possibility of hazardous reactions

The product is stable under recommended storage and handling conditions. Do not use together with other products.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Do not mix with other chemicals. Do not mix with other cleansing agents.

10.6. Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released. Carbon dioxide; Carbon monoxide.

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SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

(a) Acute toxicity

| Name | Exposure route | Туре | Species | Time | Value | Method | Remark |
|--|----------------|------------------|---------|------|------------------|--------|-----------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891- 38-3) | oral | LD ₅₀ | rat | | > 2000 mg/kg | | |
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891- 38-3) | dermal | LD ₅₀ | rat | | > 2000 mg/kg | | |
| ethanol (64-17-5) | inhalation | LD_{50} | rat | | > 8000 mg/kg | | anhydrous |
| ethanol (64-17-5) | dermal | LD ₅₀ | rabbit | | > 20000 mg/kg | | anhydrous |
| ethanol (64-17-5) | oral | LD ₅₀ | rat | | 6200 mg/kg | | anhydrous |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | dermal | LD_{50} | rabbit | | 2764 mg/kg | | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | oral | LD_{50} | mouse | | 2410 mg/kg | | |
| tetrapotassium pyrophosphate (7320-34-5) | oral | LD_{50} | mouse | | > 2000 mg/kg | | |
| (R)-p-mentha-1,8-diene (5989-27-5) | oral | LD_{50} | rat | | 4400 mg/kg | | |
| (R)-p-mentha-1,8-diene (5989-27-5) | oral | LD_{50} | mouse | | 5600 mg/kg | | |
| (R)-p-mentha-1,8-diene (5989-27-5) | dermal | LD_{50} | rabbit | | > 5000 mg/kg | | |
| citric acid, monohydrate (5949-29-1) | oral | LD ₅₀ | rat | | 3000 mg/kg | | |

Additional information: As no toxicological data available on the mixture, the following assessment on toxicological effects has been made based on the data toxicology of the ingredients and according to their amount using the calculation methods.

(b) Skin corrosion/irritation

| Name | Species | Time | Result | Method | Remark |
|--|---------|------|--------------------------------------|--------|--------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38- 3) | rabbit | | Irritating to skin. | | |
| ethanol (64-17-5) | | | Irritation and secondary infections. | | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | | | Mild irritating. | | |
| tetrapotassium pyrophosphate (7320-34-5) | | | Non-irritant. | | |
| citric acid, monohydrate (5949-29-1) | rabbit | | Mild irritating. | | |

(c) Serious eye damage/irritation

| Name | Species | Time | Result | Method | Remark |
|--|---------|------|--|--------|--------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | rabbit | | Danger of serious eye injury. | | |
| ethanol (64-17-5) | | | Steam at high concentrations cause irritation. | | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | | | Irritating. | | |
| tetrapotassium pyrophosphate (7320-34-5) | | | Irritating. | | |
| citric acid, monohydrate (5949-29-1) | rabbit | | Severe irritation. | | |

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(d) Respiratory or skin sensitisation

| Name | Exposure route | Species | Time | Result | Method | Remark |
|--|----------------|----------------|--------|--------------------------|--------|--------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891- 38-3) | - | | | Non sensitising. | | |
| ethanol (64-17-5) | - | | | Non sensitising. | | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | - | | | Non sensitising. | | |
| (R)-p-mentha-1,8-diene (5989-27-5) | dermal | | | Causes sensitization. | | |
| citric acid, monohydrate (5949-29-1) | - | | | Non sensitising. | | |
| Additional information: It contains at least one ingredient that | t can cause se | nsitisation. C | an cai | use allergic reaction | ۱. | |

(e) (Germ cell) mutagenicity

| Name | Туре | Species | Time | Result | Method | Remark |
|--|------|---------|------|--|--------|--------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | | | | The chemical is not classified as mutagenic. | | |
| ethanol (64-17-5) | | | | The chemical is not classified as mutagenic. | | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | | | | The chemical is not classified as mutagenic. | | |
| citric acid, monohydrate (5949-29-1) | | | | The chemical is not classified as mutagenic. | | |

(f) Carcinogenicity

| Name | Exposure route | Туре | Species | Time | Value | Result | Method | Remark |
|--|----------------|------|---------|------|-------|---|--------|--------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | | | | | | The chemical is not classified as carcinogenic. | | |
| ethanol (64-17-5) | | | | | | The chemical is not classified as carcinogenic. | | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | | | | | | The chemical is not classified as carcinogenic. | | |
| citric acid, monohydrate (5949-29-1) | | | | | | The chemical is not classified as carcinogenic. | | |

(g) Reproductive toxicity

| Name | Reproductive toxicity type | Туре | Species | Time | Value | Result | Method | Remark |
|---|-------------------------------|------|---------|------|-------|---|--------|--------|
| ethanol (64-17-5) | | | | | | The chemical is not classified as toxic for reproduction. | | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | | | | | | The chemical is not classified as toxic for reproduction. | | |
| citric acid, monohydrate (5949-29-1) | | | | | | The chemical is not classified as toxic for reproduction. | | |

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

No information.

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(i) STOT-repeated exposure

No information.

(j) Aspiration hazard

No information.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Acute (short-term) toxicity

For components

| Substance (CAS Nr.) | Туре | Value | Exposure time | Species | Organism | Method | Remark |
|--|--|----------------------|------------------|----------|----------------------------|--------|----------------------------------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | LC ₅₀ | 7,1 mg/L | 96 h | fish | Brachydanio rerio | | |
| | EC ₅₀ | 7,4 mg/L | 48 h | daphnia | Daphnia magna | | |
| EC ₅₀ | | 27,7 mg/L | 72 h | algae | Desmodesmus subspicatus | | |
| | LC ₅₀ /EC ₅₀ /IC ₅₀ | 1 – 10 mg/L | | | | | the most sensitive species |
| ethanol (64-17-5) | LC ₅₀ | 8140 mg/L | 48 h | fish | | | |
| | EC ₅₀ | 9268 – 14221 mg/L | 48 h | daphnia | Daphnia magna | | |
| | EC ₅ | 65 mg/L | 72 h | bacteria | | | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | LC ₅₀ | 1300 mg/L | 96 h | fish | Rhodeus amarus | | |
| | EC ₅₀ | > 100 mg/L | 48 h | daphnia | Daphnia | | |
| | EC ₅₀ | > 100 mg/L | 96 h | algae | | | |
| | EC ₁₀ | > 1995 mg/L | 30 min | bacteria | | | |
| (R)-p-mentha-1,8-diene (5989-27-5) | LC ₅₀ | 0,72 mg/L | 96 h | fish | | | |
| | EC ₅₀ | 0,688 mg/L | 96 h | fish | | | |
| citric acid, monohydrate (5949-29-1) | LC ₅₀ | 440 – 760 mg/L | 96 h | fish | Leuciscus idus | | |
| | EC ₅₀ | ca. 120 mg/L | 72 h | daphnia | Daphnia magna | | |
| | EC ₅ | > 10000 mg/L | 16 h | bacteria | Pseudomonas putida | | |

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12.1.2. Chronic (long-term) toxicity

For components

| Substance (CAS Nr.) | Туре | Value | Exposure time | Species | Organism | Method | Remark |
|--|-----------------|--------------|------------------|---------------|----------------------------|--------|--------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | NOEC | 1,2 mg/l | | fish | | | QSAR |
| | NOEC | 1,2 mg/l | | invertebrates | | | QSAR |
| ethanol (64-17-5) | IC ₅ | 5000 mg/l | 7 days | algae | | | |
| citric acid, monohydrate (5949-29-1) | IC ₅ | 640 mg/l | 7 days | algae | Scenedesmus quadricauda | | |

12.2. Persistence and degradability

12.2.1. Abiotic degradation, physical- and photo-chemical elimination

No information.

12.2.2. Biodegradation

For components

| Substance (CAS Nr.) | Туре | Rate | Time | Evaluation | Method | Remark |
|--|------------------|------------------------------|------------|--------------------------|--------------------------------|--------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | biodegradability | 100 % | 28 days | readily biodegradable | | |
| ethanol (64-17-5) | ThOD | 2,1 mg/mg | | | | |
| ethanol (64-17-5) | BOD (% ThOD) | 84 % | 20 days | | | |
| ethanol (64-17-5) | COD | 1,99 mg/mg | | | | |
| 2-(2-butoxyethoxy)ethanol (112-34-5) | BOD | 80 – 90 % | 28 days | | | |
| citric acid, monohydrate (5949-29-1) | biodegradability | 98 % | 2 days | biodegradable | Modified Zahn- Wellens-Test | |
| citric acid, monohydrate (5949-29-1) | BOD | 0,526 g O ₂ /g | | | | |
| citric acid, monohydrate (5949-29-1) | COD | 0,728 g/g | | | | |
| citric acid, monohydrate (5949-29-1) | ThOD | 0,75 g/g | | | | |

12.3. Bioaccumulative potential

12.3.1. Partition coefficient

For components

| Substance (CAS Nr.) | Media | Value | Temperature | pН | Concentration | Method |
|--|---------|-------|-------------|----|---------------|----------------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | Log Pow | ≤ 3 | | | | |
| ethanol (64-17-5) | Log Pow | 0,3 | | | | measured value |
| citric acid, monohydrate (5949-29-1) | Log Pow | -1,72 | | | | |

12.3.2. Bioconcentration factor (BCF)

No information.

12.4. Mobility in soil

12.4.1. Known or predicted distribution to environmental compartments

No information.

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12.4.2. Surface tension

No information.

12.4.3. Adsorption/Desorption

For components

| Substance (CAS Nr.) | Туре | Criterion | Value | Evaluation | Method | Remark |
|--|-------|-----------|-------|------------|--------|--------|
| alcohols, C12-14, ethoxylated, sulfates, sodium salts (68891-38-3) | Water | | | Soluble. | | |

12.5. Results of PBT and vPvB assessment

No evaluation.

12.6. Other adverse effects

No information.

12.7. Additional information

For product

Harmful to aquatic organisms.

For components

Substance: alcohols, C12-14, ethoxylated, sulfates, sodium salts

Harmful to aquatic organisms. May cause long term adverse effects in the aquatic environment.

No bioaccumulation expected.

This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

This substance is not in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Substance: 2-(2-butoxyethoxy)ethanol

Not classified as dangerous for the ozone layer (Regulation (EC) No. 1005/2009) Bioaccumulation is not expected.

Substance: citric acid, monohydrate

Adverse effects on aquatic organisms due to changes in pH.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product / Packaging disposal

Waste chemical

Dispose of in accordance with applicable waste disposal regulation. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Do not allow product to reach drains/sewage systems.

Packaging

Dispose of in accordance with applicable waste disposal regulation. Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents.

13.1.2. Waste treatment-relevant information

13.1.3. Sewage disposal-relevant information

13.1.4. Other disposal recommendations

SECTION 14. TRANSPORT INFORMATION

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14.1. UN number

Not applicable.

14.2. UN proper shipping name

ADR, RID, IMDG, ADN, IATA: Not dangerous according to transport regulations.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

NO.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

SECTION 15. REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2015/830)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

<u>15.1.1. Information according 2004/42/EC about limitation of emissions of volatile organic compounds</u> (VOC-guideline)

Not applicable.

15.1.2. Ingredients according to Regulation EC 648/2004 on detergents

< 5%: anionic surfactants; perfumes (Limonene)

15.2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for one or more substances present in the material.

SECTION 16. OTHER INFORMATION

Indication of changes

Abbreviations and acronyms

- ATE Acute Toxicity Estimate
- ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- CEN European Committee for Standardisation
- C&L Classification and Labelling
- CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
- CAS# Chemical Abstracts Service number
- CMR Carcinogen, Mutagen, or Reproductive Toxicant
- CSA Chemical Safety Assessment
- CSR Chemical Safety Report
- DMEL Derived Minimal Effect Level
- DNEL Derived No Effect Level

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DPD - Dangerous Preparations Directive 1999/45/EC DSD - Dangerous Substances Directive 67/548/EEC DU - Downstream User EC - European Community ECHA - European Chemicals Agency EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS) EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway) EEC - European Economic Community EINECS - European Inventory of Existing Commercial Substances ELINCS - European List of notified Chemical Substances EN - European Standard EQS - Environmental Quality Standard EU - European Union Euphrac - European Phrase Catalogue EWC - European Waste Catalogue (replaced by LoW - see below) GES - Generic Exposure Scenario GHS - Globally Harmonized System IATA - International Air Transport Association ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air IMDG - International Maritime Dangerous Goods IMSBC - International Maritime Solid Bulk Cargoes IT - Information Technology IUCLID - International Uniform Chemical Information Database IUPAC - International Union for Pure Applied Chemistry JRC - Joint Research Centre Kow - octanol-water partition coefficient LC₅₀ - Lethal Concentration to 50 % of a test population LD₅₀ - Lethal Dose to 50% of a test population (Median Lethal Dose) LE - Legal Entity LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm) LR - Lead Registrant M/I - Manufacturer / Importer MS - Member States MSDS - Material Safety Data Sheet **OC** - Operational Conditions OECD - Organization for Economic Co-operation and Development **OEL - Occupational Exposure Limit** OJ - Official Journal **OR** - Only Representative OSHA - European Agency for Safety and Health at work PBT - Persistent, Bioaccumulative and Toxic substance PEC - Predicted Effect Concentration PNEC(s) - Predicted No Effect Concentration(s) PPE - Personal Protection Equipment (Q)SAR - Qualitative Structure Activity Relationship REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 RID - Regulations concerning the International Carriage of Dangerous Goods by Rail **RIP - REACH Implementation Project** RMM - Risk Management Measure SCBA - Self-Contained Breathing Apparatus SDS - Safety data sheet SIEF - Substance Information Exchange Forum SME - Small and Medium sized Enterprises STOT - Specific Target Organ Toxicity (STOT) RE - Repeated Exposure (STOT) SE - Single Exposure SVHC - Substances of Very High Concern **UN** - United Nations vPvB - Very Persistent and Very Bioaccumulative

Key literature references and sources for data

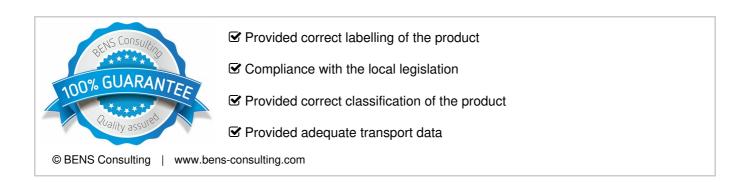
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List of relevant H phrases

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.



The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under Section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.