

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Marine Universal Cleaner K 1 L
Art.: 25073

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

Relevant identified uses of the substance or mixture:

Special cleaner
Chemical product category [PC]:
PC35 - Washing and cleaning products

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

GB

LIQUI MOLY GmbH, Jerg-Wieland-Str. 4, 89081 Ulm-Lehr, Germany
Phone:(+49) 0731-1420-0, Fax:(+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

| Hazard class | Hazard category | Hazard statement |
|--------------|-----------------|-------------------------------------|
| Eye Irrit. | 2 | H319-Causes serious eye irritation. |
| Skin Irrit. | 2 | H315-Causes skin irritation. |

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)

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Warning

H319-Causes serious eye irritation. H315-Causes skin irritation.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.
 P280-Wear protective gloves and eye protection / face protection.
 P314-Get medical advice / attention if you feel unwell.

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substance

n.a.

3.2 Mixture

| | |
|---|--------------------|
| Alcohols, C9-11, ethoxylated | |
| Registration number (REACH) | --- |
| Index | --- |
| EINECS, ELINCS, NLP | --- |
| CAS | 68439-46-3 |
| content % | 1-5 |
| Classification according to Regulation (EC) 1272/2008 (CLP) | Eye Irrit. 2, H319 |

| | |
|---|------------------|
| Fatty alcohol ethoxylate | |
| Registration number (REACH) | --- |
| Index | --- |
| EINECS, ELINCS, NLP | --- |
| CAS | 160875-66-1 |
| content % | 1-<3 |
| Classification according to Regulation (EC) 1272/2008 (CLP) | Eye Dam. 1, H318 |

| | |
|-----------------------------|-----------------------|
| Ethanolamine | |
| Registration number (REACH) | 01-2119486455-28-XXXX |
| Index | 603-030-00-8 |
| EINECS, ELINCS, NLP | 205-483-3 |
| CAS | 141-43-5 |
| content % | 1-2,5 |

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Classification according to Regulation (EC) 1272/2008 (CLP)

Acute Tox. 4, H302
 Acute Tox. 4, H312
 Acute Tox. 4, H332
 Skin Corr. 1B, H314
 Aquatic Chronic 3, H412
 Eye Dam. 1, H318

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Adapt to the nature and extent of fire.

Water jet spray/foam/CO2/dry extinguisher

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Oxides of nitrogen

Toxic gases

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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Ensure sufficient supply of air.
 Avoid contact with eyes or skin.
 If applicable, caution - risk of slipping.

6.2 Environmental precautions

If leakage occurs, dam up.
 Resolve leaks if this possible without risk.
 Prevent surface and ground-water infiltration, as well as ground penetration.
 Prevent from entering drainage system.
 If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.
 Flush residue using copious water.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.
 Avoid aerosol formation.
 Avoid contact with eyes or skin.
 Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
 Observe directions on label and instructions for use.
 Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
 Store product closed and only in original packing.
 Not to be stored in gangways or stair wells.
 Store at room temperature.
 Protect from frost.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| Chemical Name | Ethanolamine | Content %:1-2,5 |
|---|---|-----------------|
| WEL-TWA: 1 ppm (2,5 mg/m ³) (WEL-TWA, EU) | WEL-STEL: 3 ppm (7,6 mg/m ³) (WEL-STEL, EU) | --- |
| Monitoring procedures: | <ul style="list-style-type: none"> - Compur - KITA-224 SA (548 634) - DFG (D) (Alkanolamine), DFG (E) (Alkanolamines (2-aminoethanol, diethanolamin, triethanolamin)) - 2000, 2003 - EU project BC/CEN/ENTR/000/2002-16 card 49-1 (2004) - OSHA PV2111 (Ethanolamine) - 1988 - EU project BC/CEN/ENTR/000/2002-16 card 49-5 (2004) - NIOSH 2007 (Aminoethanol compounds) - 1994 | |
| BMGV: --- | Other information: Sk (WEL, EU) | |

Ethanolamine

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| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
|---------------------|--|-----------------------------|------------|--------|------------------|------|
| | Environment - freshwater | | PNEC | 0,085 | mg/l | |
| | Environment - marine | | PNEC | 0,0085 | mg/l | |
| | Environment - periodic release | | PNEC | 0,025 | mg/l | |
| | Environment - sediment, freshwater | | PNEC | 0,425 | mg/kg dry weight | |
| | Environment - sediment, marine | | PNEC | 0,0425 | mg/kg dry weight | |
| | Environment - soil | | PNEC | 0,035 | mg/kg | |
| | Environment - sewage treatment plant | | PNEC | 100 | mg/l | |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 0,24 | mg/kg bw/day | |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 2 | mg/m3 | |
| Consumer | Human - inhalation | Long term, local effects | DNEL | 2 | mg/m3 | |
| Consumer | Human - oral | Long term, systemic effects | DNEL | 3,75 | mg/kg bw/day | |
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 1 | mg/kg bw/day | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 3,3 | mg/m3 | |
| Workers / employees | Human - inhalation | Long term, local effects | DNEL | 3,3 | mg/m3 | |

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
 ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. BS EN 14042.

BS EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN 374).

Recommended

Protective nitrile gloves (EN 374).

Minimum layer thickness in mm:

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0,5
 Permeation time (penetration time) in minutes:
 480
 The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.
 The recommended maximum wearing time is 50% of breakthrough time.
 Protective hand cream recommended.

Skin protection - Other:
 Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:
 Normally not necessary.

Thermal hazards:
 Not applicable

Additional information on hand protection - No tests have been performed.
 In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
 Selection of materials derived from glove manufacturer's indications.
 Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
 Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
 In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
 The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|---|
| Physical state: | Liquid |
| Colour: | Clear, Light yellow |
| Odour: | Soap |
| Odour threshold: | Not determined |
| pH-value: | 10,75 (20°C, DIN 19268) |
| Melting point/freezing point: | Not determined |
| Initial boiling point and boiling range: | ~100 °C |
| Flash point: | n.a. |
| Evaporation rate: | Not determined |
| Flammability (solid, gas): | n.a. |
| Lower explosive limit: | Not determined |
| Upper explosive limit: | Not determined |
| Vapour pressure: | 23 hPa (20°C) |
| Vapour density (air = 1): | Not determined |
| Density: | 1,035 g/cm ³ (20°C, DIN 51757) |
| Bulk density: | n.a. |
| Solubility(ies): | Not determined |
| Water solubility: | Soluble |
| Partition coefficient (n-octanol/water): | Not determined |
| Auto-ignition temperature: | No |
| Decomposition temperature: | Not determined |
| Viscosity: | Low-viscous |
| Explosive properties: | Product is not explosive. |
| Oxidising properties: | No |

9.2 Other information

| | |
|---------------------------|----------------|
| Miscibility: | Not determined |
| Fat solubility / solvent: | Not determined |
| Conductivity: | Not determined |
| Surface tension: | Not determined |
| Solvents content: | Not determined |

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SECTION 10: Stability and reactivity

10.1 Reactivity

Not to be expected

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

None known

10.5 Incompatible materials

None known

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

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| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|---|----------|-------|---------|----------|-------------|------------------------------|
| Acute toxicity, by oral route: | ATE | >2000 | mg/kg | | | calculated value |
| Acute toxicity, by dermal route: | ATE | >2000 | mg/kg | | | calculated value |
| Acute toxicity, by inhalation: | ATE | >20 | mg/l/4h | | | calculated value, Vapours |
| Acute toxicity, by inhalation: | ATE | >5 | mg/l/4h | | | calculated value, Aerosol |
| Skin corrosion/irritation: | | | | | | n.d.a. |
| Serious eye damage/irritation: | | | | | | n.d.a. |
| Respiratory or skin sensitisation: | | | | | | n.d.a. |
| Germ cell mutagenicity: | | | | | | n.d.a. |
| Carcinogenicity: | | | | | | n.d.a. |
| Reproductive toxicity: | | | | | | n.d.a. |
| Specific target organ toxicity - single exposure (STOT-SE): | | | | | | n.d.a. |
| Specific target organ toxicity - repeated exposure (STOT-RE): | | | | | | n.d.a. |
| Aspiration hazard: | | | | | | n.d.a. |
| Symptoms: | | | | | | n.d.a. |

Alcohols, C9-11, ethoxylated

| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|------------------------------------|----------|-------|-------|----------|-------------------------------|---------------------------------------|
| Acute toxicity, by oral route: | LD50 | >2000 | mg/kg | Rat | | Analogous conclusion |
| Acute toxicity, by dermal route: | LD50 | >2000 | mg/kg | Rabbit | | Analogous conclusion |
| Skin corrosion/irritation: | | | | Rabbit | | Not irritant, Analogous conclusion |
| Respiratory or skin sensitisation: | | | | | OECD 406 (Skin Sensitisation) | Not sensitising |

Fatty alcohol ethoxylate

| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|--------------------------------|----------|-------|-------|----------|-------------|----------------------|
| Acute toxicity, by oral route: | LD50 | >2000 | mg/kg | Rat | | Analogous conclusion |

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| | | | | | | | |
|--|--|--|--|--|--|--|--|
| 12.2. Persistence and degradability: | | | | | | | The surfactant(s) contained in this mixture 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. |
| 12.3. Bioaccumulative potential: | | | | | | | n.d.a. |
| 12.4. Mobility in soil: | | | | | | | n.d.a. |
| 12.5. Results of PBT and vPvB assessment | | | | | | | n.d.a. |
| 12.6. Other adverse effects: | | | | | | | n.d.a. |

| Alcohols, C9-11, ethoxylated | | | | | | | |
|--------------------------------------|----------|------|--------|------|----------------------|--|-------------------------------------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | LC50 | 96h | >1-<10 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | >1-10 | mg/l | Daphnia magna | | Analogous conclusion |
| 12.1. Toxicity to algae: | EC50 | 72h | >1-10 | mg/l | Skeletonema costatum | | Analogous conclusion |
| 12.2. Persistence and degradability: | BOD | 28d | >60 | % | | OECD 301 D (Ready Biodegradability - Closed Bottle Test) | |
| 12.2. Persistence and degradability: | BOD | 28d | >70 | % | | OECD 306 (Biodegradability in Seawater) | Readily biodegradable, marine water |
| 12.3. Bioaccumulative potential: | Log Pow | | 2,4 | | | | Not to be expected |

| Fatty alcohol ethoxylate | | | | | | | |
|--------------------------------------|----------|------|-----------|------|---------------|--|-------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | LC50 | 96h | 10-100 | mg/l | | | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | >10 - 100 | mg/l | Daphnia magna | | |
| 12.2. Persistence and degradability: | | 28d | >60 | % | | OECD 301 D (Ready Biodegradability - Closed Bottle Test) | |

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| | | | | | | | |
|--|--|--|--|--|--|--|-------------------------------------|
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |
| Water solubility: | | | | | | | Mixable |

| Ethanolamine | | | | | | | |
|--|-----------------|-------------|--------------|-------------|---------------------------|---|-------------------------------------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | LC50 | 96h | 170 | mg/l | Carassius auratus | | |
| 12.1. Toxicity to fish: | NOEC/NOEL | 30d | 1,2 | mg/l | Oryzias latipes | | |
| 12.2. Persistence and degradability: | | 28d | 96 | % | | OECD 301 B (Ready Biodegradability - Co2 Evolution Test) | Readily biodegradable |
| 12.2. Persistence and degradability: | DOC | 21d | >91 | % | activated sludge | OECD 301 A (Ready Biodegradability - DOC Die-Away Test) | |
| 12.3. Bioaccumulative potential: | | | | | | | Not to be expected |
| 12.1. Toxicity to daphnia: | NOEC/NOEL | 21d | 0,85 | mg/l | Daphnia magna | OECD 211 (Daphnia magna Reproduction Test) | |
| 12.3. Bioaccumulative potential: | Log Pow | | -1,91 | | | | 25°C |
| 12.1. Toxicity to daphnia: | EC50 | 48h | 65 | mg/l | Daphnia magna | 84/449/EEC C.2 | |
| 12.1. Toxicity to daphnia: | NOEC/NOEL | 21d | 0,85 | mg/l | Daphnia magna | OECD 211 (Daphnia magna Reproduction Test) | |
| 12.1. Toxicity to algae: | EC50 | 72h | 2,5 | mg/l | Selenastrum capricornutum | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.1. Toxicity to algae: | NOAEC | 72h | 1 | mg/l | Selenastrum capricornutum | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.1. Toxicity to fish: | NOEC/NOEL | 30d | 1,2 | mg/l | Oryzias latipes | | |
| 12.1. Toxicity to fish: | LC50 | 96h | 349 | mg/l | Cyprinus caprio | 84/449/EEC C.1 | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | 65 | mg/l | Daphnia magna | 84/449/EEC C.2 | |
| 12.2. Persistence and degradability: | | 21d | >90 | % | | OECD 302 A (Inherent Biodegradability - Modified SCAS Test) | Readily biodegradable |
| 12.2. Persistence and degradability: | DOC | 21d | >91 | % | activated sludge | OECD 301 A (Ready Biodegradability - DOC Die-Away Test) | |
| 12.1. Toxicity to algae: | EC50 | 72h | 2,5 | mg/l | Selenastrum capricornutum | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.1. Toxicity to algae: | EC50 | 72h | 22 | mg/l | Scenedesmus subspicatus | 84/449/EEC C.3 | |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |

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| | | | | | | | |
|-----------------------|------|----|-------|------|------------------|--|--|
| Toxicity to bacteria: | EC50 | 3h | >1000 | mg/l | activated sludge | OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)) | |
| Other information: | BOD | 5d | 800 | mg/g | | | |

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

20 01 29 detergents containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

Recommended cleaner:

Water

SECTION 14: Transport information

General statements

14.1. UN number: n.a.

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):

n.a.

14.4. Packing group:

n.a.

Classification code:

n.a.

LQ:

n.a.

14.5. Environmental hazards:

Not applicable

Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

n.a.

14.3. Transport hazard class(es):

n.a.

14.4. Packing group:

n.a.

Marine Pollutant:

n.a.

14.5. Environmental hazards:

Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:

n.a.

14.3. Transport hazard class(es):

n.a.

14.4. Packing group:

n.a.

14.5. Environmental hazards:

Not applicable

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

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

Non-dangerous material according to Transport Regulations.

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SECTION 15: Regulatory information

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

Observe restrictions:
 Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!
 Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC): 2 %

REGULATION (EC) No 648/2004

less than 5 %

amphoteric surfactants
 non-ionic surfactants

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 3, 11, 12, 15

These details refer to the product as it is delivered.
 Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

| Classification in accordance with regulation (EC) No. 1272/2008 (CLP) | Evaluation method used |
|---|--|
| Eye Irrit. 2, H319 | Classification according to calculation procedure. |
| Skin Irrit. 2, H315 | Classification according to calculation procedure. |

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H412 Harmful to aquatic life with long lasting effects.

Eye Irrit. — Eye irritation
 Skin Irrit. — Skin irritation
 Eye Dam. — Serious eye damage
 Acute Tox. — Acute toxicity - oral
 Acute Tox. — Acute toxicity - dermal
 Acute Tox. — Acute toxicity - inhalation
 Skin Corr. — Skin corrosion
 Aquatic Chronic — Hazardous to the aquatic environment - chronic

Any abbreviations and acronyms used in this document:

AC Article Categories
 acc., acc. to according, according to
 ACGIH American Conference of Governmental Industrial Hygienists

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ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
 AOEL Acceptable Operator Exposure Level
 AOX Adsorbable organic halogen compounds
 approx. approximately
 Art., Art. no. Article number
 ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
 BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
 BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
 BCF Bioconcentration factor
 BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
 BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)
 BMGV Biological monitoring guidance value (EH40, UK)
 BOD Biochemical oxygen demand
 BSEF Bromine Science and Environmental Forum
 bw body weight
 CAS Chemical Abstracts Service
 CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
 CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
 CIPAC Collaborative International Pesticides Analytical Council
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
 CMR carcinogenic, mutagenic, reproductive toxic
 COD Chemical oxygen demand
 CTFA Cosmetic, Toiletry, and Fragrance Association
 DMEL Derived Minimum Effect Level
 DNEL Derived No Effect Level
 DOC Dissolved organic carbon
 DT50 Dwell Time - 50% reduction of start concentration
 DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
 dw dry weight
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
 EC European Community
 ECHA European Chemicals Agency
 EEA European Economic Area
 EEC European Economic Community
 EINECS European Inventory of Existing Commercial Chemical Substances
 ELINCS European List of Notified Chemical Substances
 EN European Norms
 EPA United States Environmental Protection Agency (United States of America)
 ERC Environmental Release Categories
 ES Exposure scenario
 etc. et cetera
 EU European Union
 EWC European Waste Catalogue
 Fax. Fax number
 gen. general
 GHS Globally Harmonized System of Classification and Labelling of Chemicals
 GWP Global warming potential
 HET-CAM Hen's Egg Test - Chorionallantoic Membrane
 HGWP Halocarbon Global Warming Potential
 IARC International Agency for Research on Cancer
 IATA International Air Transport Association
 IBC Intermediate Bulk Container
 IBC (Code) International Bulk Chemical (Code)
 IC Inhibitory concentration
 IMDG-code International Maritime Code for Dangerous Goods
 incl. including, inclusive
 IUCLID International Uniform Chemical Information Database
 LC lethal concentration
 LC50 lethal concentration 50 percent kill
 LCLo lowest published lethal concentration
 LD Lethal Dose of a chemical

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LD50 Lethal Dose, 50% kill
LDLo Lethal Dose Low
LOAEL Lowest Observed Adverse Effect Level
LOEC Lowest Observed Effect Concentration
LOEL Lowest Observed Effect Level
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute of Occupational Safety and Health (United States of America)
NOAEC No Observed Adverse Effective Concentration
NOAEL No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
NOEL No Observed Effect Level
ODP Ozone Depletion Potential
OECD Organisation for Economic Co-operation and Development
org. organic
PAH polycyclic aromatic hydrocarbon
PBT persistent, bioaccumulative and toxic
PC Chemical product category
PE Polyethylene
PNEC Predicted No Effect Concentration
POCP Photochemical ozone creation potential
ppm parts per million
PROC Process category
PTFE Polytetrafluorethylene
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT Self-Accelerating Decomposition Temperature
SAR Structure Activity Relationship
SU Sector of use
SVHC Substances of Very High Concern
Tel. Telephone
ThOD Theoretical oxygen demand
TOC Total organic carbon
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).
WHO World Health Organization
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

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