

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Mixture
Product name : Staluclean
UFI : 26DC-QP1A-630Y-HY64
Product code : ZU-3007
Type of product : Detergent
Product group : Cleaning product

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

Main use category : Professional use
Industrial/Professional use spec : Wide dispersive use
Use of the substance/mixture : The information given in this MSDS concerns the product and is given on the assumption mentioned in section 1.1, that the product will be used in the manner and for the purposes indicated by the manufacturer.
Use of the substance/mixture : Metal cleaner

1.3. Details of the supplier of the safety data sheet**Distributor**

Huchem B.V.
Kraijenhoffstraat 2
NL 4251 LE Werkendam
Nederland
T +31 (0)887 877 799
info@huchem.nl, www.huchem.nl

1.4. Emergency telephone number

| Country/Area | Organisation/Company | Address | Emergency number | Comment |
|----------------|--|--|--|--------------------------------------|
| Ireland | National Poisons Information Centre Beaumont Hospital | PO Box 1297 Beaumont Road 9 Dublin | +353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7) | |
| United Kingdom | National Poisons Information Service (Birmingham Centre) City Hospital | Dudley Road B18 7QH | 0344 892 0111 | Only for healthcare professionals |

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Corrosive to metals, Category 1 H290
Skin corrosion/irritation, Category 1, Sub-Category 1B H314
Serious eye damage/eye irritation, Category 1 H318
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage.

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2.2. Label elements

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

Hazard pictograms (CLP)



GHS05

Signal word (CLP) : Danger.

Contains : hydrogen chloride; ammonium bifluoride; ammonium hydrogen difluoride

Hazard statements (CLP) : H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP) : P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P301+P330+P331+P310 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a doctor.
P303+P361+P353+P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a doctor.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.
P390 - Absorb spillage to prevent material damage.

EUH-statements : EUH210 - Safety data sheet available on request.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--|--|---------|---|
| hydrogen chloride substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit | CAS-No.: 7647-01-0 EC-No.: 231-595-7 EC Index-No.: 017-002-00-2 REACH-no: 01-2119484862- 27 | 5 – 10 | Met. Corr. 1, H290 Skin Corr. 1B, H314 STOT SE 3, H335 |
| ammonium bifluoride; ammonium hydrogen difluoride | CAS-No.: 1341-49-7 EC-No.: 215-676-4 EC Index-No.: 009-009-00-4 REACH-no: 01-2119489180- 38 | 5 – 10 | Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314 |
| C9-11 PARETH-6 | CAS-No.: 68439-46-3 REACH-no: Polymer | 1 – 5 | Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Eye Dam. 1, H318 |
| ammonium fluoride | CAS-No.: 12125-01-8 EC-No.: 235-185-9 EC Index-No.: 009-006-00-8 REACH-no: 01-2119974147- 30 | 0,1 – 1 | Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 |

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| Specific concentration limits: | | |
|---|---|---|
| Name | Product identifier | Specific concentration limits (%) |
| hydrogen chloride | CAS-No.: 7647-01-0 EC-No.: 231-595-7 EC Index-No.: 017-002-00-2 REACH-no: 01-2119484862-27 | (10 ≤ C < 100) STOT SE 3; H335 (10 ≤ C < 25) Eye Irrit. 2; H319 (10 ≤ C < 25) Skin Irrit. 2; H315 (25 ≤ C < 100) Skin Corr. 1B; H314 |
| ammonium bifluoride; ammonium hydrogen difluoride | CAS-No.: 1341-49-7 EC-No.: 215-676-4 EC Index-No.: 009-009-00-4 REACH-no: 01-2119489180-38 | (0,1 ≤ C < 1) Skin Irrit. 2; H315 (0,1 ≤ C < 1) Eye Irrit. 2; H319 (1 ≤ C ≤ 100) Skin Corr. 1B; H314 |

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a physician immediately. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. Call a physician immediately. |
| First-aid measures after skin contact | : Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. |
| First-aid measures after ingestion | : Rinse mouth. Do not induce vomiting. Call a physician immediately. |

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

| | |
|-------------------------------------|--|
| Symptoms/effects | : Causes severe skin burns and eye damage. |
| Symptoms/effects after inhalation | : Inhalation may cause irritation (cough, short breathing, difficulty in breathing). |
| Symptoms/effects after skin contact | : Burns. |
| Symptoms/effects after eye contact | : Serious damage to eyes. |
| Symptoms/effects after ingestion | : Burns. |

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

| | |
|--------------------------------|--|
| Firefighting instructions | : Exercise caution when fighting any chemical fire. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Clean up any spills as soon as possible, using an absorbent material to collect it.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe vapours, gas, mist, fume, spray, dust.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Absorb spilled material with sand or earth. Absorb remaining liquid with sand or inert absorbent and remove to safe place.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe vapours, gas, mist, fume, spray, dust. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place. Keep cool.

Incompatible products : Oxidizing agent. Strong bases.

Incompatible materials : Metals.

Storage temperature : 10 – 30 °C

Information on mixed storage : Keep in a cool place away from (strong) bases.

Storage area : Store in a clean, dry, fire resistant area. Ensure that there is a suitable ventilation system.

Special rules on packaging : Store in a closed container.

Packaging materials : Store always product in container of same material as original container. Do not store in corrodable metal.

7.3. Specific end use(s)

Carefully comply with the instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

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| hydrogen chloride (7647-01-0) | |
|---|---|
| EU - Indicative Occupational Exposure Limit (IOEL) | |
| Local name | Hydrogen chloride |
| IOEL TWA | 8 mg/m ³ |
| | 5 ppm |
| IOEL STEL | 15 mg/m ³ |
| | 10 ppm |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Hydrogen chloride |
| WEL TWA (OEL TWA) | 2 mg/m ³ gas and aerosol mists |
| | 1 ppm gas and aerosol mists |
| WEL STEL (OEL STEL) | 8 mg/m ³ gas and aerosol mists |
| | 5 ppm gas and aerosol mists |

DNEL and PNEC

| hydrogen chloride (7647-01-0) | |
|--|----------------------------|
| DNEL/DMEL (Workers) | |
| Acute - local effects, inhalation | 15 mg/m ³ |
| Long-term - local effects, inhalation | 8 mg/m ³ |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 36 µg/l |
| PNEC aqua (marine water) | 36 µg/l |
| PNEC aqua (intermittent, freshwater) | 45 µg/l |
| PNEC (STP) | |
| PNEC sewage treatment plant | 36 µg/l |
| ammonium bifluoride; ammonium hydrogen difluoride (1341-49-7) | |
| DNEL/DMEL (Workers) | |
| Acute - local effects, inhalation | 3,8 mg/m ³ |
| Long-term - systemic effects, inhalation | 2,3 mg/m ³ |
| DNEL/DMEL (General population) | |
| Acute - systemic effects, oral | 0,015 ng/kg bodyweight/day |
| Long-term - systemic effects, oral | 0,015 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 0,045 mg/m ³ |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 1,3 mg/l |
| PNEC (Soil) | |
| PNEC soil | 22 mg/kg dwt |
| PNEC (STP) | |
| PNEC sewage treatment plant | 76 mg/l |

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8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Ensure that there is a suitable ventilation system. Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Wear security glasses which protect from splashes (EN ISO16321 CH)

| Eye protection | | | |
|-----------------------------|--|-------------------|-----------------|
| Type | Field of application | Characteristics | Standard |
| Safety glasses, Face shield | Protection for Liquid particles, Droplet | With side shields | EN ISO 16321 CH |

Skin protection

Skin and body protection:

Wear impervious rubber safety shoes (EN ISO 20345 S7). Long sleeved protective clothing (EN 14605)

| Skin and body protection | |
|--------------------------|--------------|
| Type | Standard |
| Tyvek® Gown/Coveralls | EN 14605 |
| Safety shoes | EN ISO 20345 |

Hand protection:

Protective gloves

| Hand protection | | | | | |
|-------------------|----------------------|------------------|----------------|-------------|------------|
| Type | Material | Permeation | Thickness (mm) | Penetration | Standard |
| Disposable gloves | Nitrile rubber (NBR) | 2 (> 30 minutes) | 0,4 | 2 (< 1.5) | EN ISO 374 |

Respiratory protection

Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

| Respiratory protection | | | |
|------------------------|---------------|-------------------|----------|
| Device | Filter type | Condition | Standard |
| Full face respirator | ABEK, Type P2 | Vapour protection | EN 140 |

Environmental exposure controls

Environmental exposure controls:

Carefully comply with the instructions for use. Avoid release to the environment.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Liquid |
| Colour | : red. |
| Appearance | : Clear. |
| Odour | : irritating/pungent odour. |
| Odour threshold | : Not specifically applicable to the product (as is) |
| Melting point | : Not available |
| Freezing point | : $\approx -5\text{ }^{\circ}\text{C}$ |
| Boiling point | : $\approx 105\text{ }^{\circ}\text{C}$ |
| Flammability | : Not applicable, Not flammable |
| Lower explosion limit | : Not specifically applicable to the product (as is) |
| Upper explosion limit | : Not specifically applicable to the product (as is) |
| Flash point | : Not applicable (aqueous non combustible product) |
| Auto-ignition temperature | : $> 200\text{ }^{\circ}\text{C}$ Data obtained by expert judgement |
| Decomposition temperature | : No decomposition if stored normally |
| pH | : 1 |
| pH solution concentration | : 100 % |
| Viscosity, kinematic | : $< 17,857\text{ mm}^2/\text{s}$ |
| Viscosity, dynamic | : $< 20\text{ mPa}\cdot\text{s}$ |
| Solubility | : completely soluble. |
| Partition coefficient n-octanol/water (Log Kow) | : Not applicable for preparations |
| Vapour pressure | : undefined |
| Vapour pressure at 50°C | : undefined |
| Density | : $1,12\text{ g}/\text{cm}^3$ |
| Relative density | : undefined |
| Relative vapour density at 20°C | : > 1 Data obtained by expert judgement |
| Particle characteristics | : Not applicable |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

metals. Strong bases.

10.6. Hazardous decomposition products

No additional information available

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SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

| Staluclean | |
|--|--|
| ATE CLP (oral) | 500 mg/kg bodyweight |
| hydrogen chloride (7647-01-0) | |
| LD50 oral rat | 237 – 277 mg/kg |
| LD50 dermal | > 5010 mg/kg bodyweight |
| LC50 Inhalation - Rat | 8,3 mg/l |
| ammonium bifluoride; ammonium hydrogen difluoride (1341-49-7) | |
| LD50 oral rat | 130 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity) |
| ammonium fluoride (12125-01-8) | |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal)) |
| LC50 Inhalation - Rat | 1 mg/l air Animal: rat, Guideline: EPA OPP 81-3 (Acute inhalation toxicity), Guideline: OECD Guideline 403 (Acute Inhalation Toxicity) |
| LC50 Inhalation - Rat (Vapours) | 1 mg/l/4h |
| C9-11 PARETH-6 (68439-46-3) | |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LC50 Inhalation - Rat | > 1,6 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity) |
| Skin corrosion/irritation | : Causes severe skin burns. pH: 1 |
| Serious eye damage/irritation | : Causes serious eye damage. pH: 1 |
| Respiratory or skin sensitisation | : Not classified (Based on available data, the classification criteria are not met) |
| Germ cell mutagenicity | : Not classified (Based on available data, the classification criteria are not met) |
| Carcinogenicity | : Not classified (Based on available data, the classification criteria are not met) |
| Reproductive toxicity | : Not classified (Based on available data, the classification criteria are not met) |
| STOT-single exposure | : Not classified (Based on available data, the classification criteria are not met) |
| hydrogen chloride (7647-01-0) | |
| STOT-single exposure | May cause respiratory irritation. |
| STOT-repeated exposure | : Not classified (Based on available data, the classification criteria are not met) |
| ammonium fluoride (12125-01-8) | |
| LOAEL (oral, rat, 90 days) | ≈ 4 mg/kg bodyweight Animal: rat, Guideline: other:EPA OPP 83-5 (Combined Chronic Toxicity / Carcinogenicity) |
| NOAEL (oral, rat, 90 days) | ≈ 25 mg/kg bodyweight Animal: rat, Guideline: other:EPA OPP 83-5 (Combined Chronic Toxicity / Carcinogenicity) |
| C9-11 PARETH-6 (68439-46-3) | |
| NOAEL (oral, rat, 90 days) | ≥ 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |
| Aspiration hazard | : Not classified (Based on available data, the classification criteria are not met) |

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| | |
|----------------------|-----------------------------|
| Viscosity, kinematic | < 17,857 mm ² /s |
|----------------------|-----------------------------|

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.
Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

hydrogen chloride (7647-01-0)

| | |
|------------------------------------|---------------------|
| LC50 - Fish [1] | 3,25 mg/l |
| EC50 - Other aquatic organisms [1] | 4,92 mg/l waterflea |
| EC50 - Other aquatic organisms [2] | 4,5 mg/l |

ammonium bifluoride; ammonium hydrogen difluoride (1341-49-7)

| | |
|------------------------|--|
| LC50 - Fish [1] | 421,4 mg/l Test organisms (species): no data |
| EC50 - Crustacea [1] | 26 mg/l |
| EC50 96h - Algae [1] | 43 mg/l |
| NOEC chronic fish | 1,2 mg/l Test organisms (species): Oncorhynchus gorbuscha Duration: '61 d' |
| NOEC chronic crustacea | 8,9 mg/l |

ammonium fluoride (12125-01-8)

| | |
|------------------------|--|
| LC50 - Fish [1] | 209 mg/l Test organisms (species): Cyprinus carpio |
| EC50 - Crustacea [1] | 2,94 mg/l Test organisms (species): Daphnia magna |
| EC50 96h - Algae [1] | 122 mg/l |
| LOEC (chronic) | 30,2 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic crustacea | 3,7 mg/l |

C9-11 PARETH-6 (68439-46-3)

| | |
|----------------------|--|
| LC50 - Fish [1] | 5 – 7 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) |
| EC50 - Crustacea [1] | 2,5 mg/l Test organisms (species): Daphnia magna |
| EC50 96h - Algae [1] | 1,4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |

12.2. Persistence and degradability

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| | |
|-------------------------------|---|
| Persistence and degradability | 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. |
|-------------------------------|---|

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| | |
|--|--------------------|
| hydrogen chloride (7647-01-0) | |
| Persistence and degradability | Rapidly degradable |
| ammonium bifluoride; ammonium hydrogen difluoride (1341-49-7) | |
| Persistence and degradability | Rapidly degradable |
| ammonium fluoride (12125-01-8) | |
| Persistence and degradability | Rapidly degradable |
| C9-11 PARETH-6 (68439-46-3) | |
| Persistence and degradability | Rapidly degradable |

12.3. Bioaccumulative potential

| | |
|--|---------------------------------|
| Staluclean | |
| Partition coefficient n-octanol/water (Log Kow) | Not applicable for preparations |
| hydrogen chloride (7647-01-0) | |
| Partition coefficient n-octanol/water (Log Kow) | Not applicable for preparations |
| ammonium bifluoride; ammonium hydrogen difluoride (1341-49-7) | |
| Partition coefficient n-octanol/water (Log Kow) | Not applicable for preparations |
| ammonium fluoride (12125-01-8) | |
| Partition coefficient n-octanol/water (Log Kow) | Not applicable for preparations |
| C9-11 PARETH-6 (68439-46-3) | |
| Partition coefficient n-octanol/water (Log Kow) | Not applicable for preparations |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|--|--|
| Regional waste regulation | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Product/Packaging disposal recommendations | : Dispose in a safe manner in accordance with local/national regulations. Empty containers can be dumped after cleaning according to local legislation. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations. |
| Ecological waste information | : Avoid release to the environment. |
| European List of Waste (LoW, EC 2000/532) | : 20 01 29* - detergents containing dangerous substances |
| HP Code | : HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure. |
| | : HP8 - "Corrosive:" waste which on application can cause skin corrosion. |






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SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

| ADR | IMDG | IATA | ADN | RID |
|--|---|---|---|---|
| 14.1. UN number or ID number | | | | |
| UN 3264 | UN 3264 | UN 3264 | UN 3264 | UN 3264 |
| 14.2. UN proper shipping name | | | | |
| CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrogen chloride ; ammonium bifluoride; ammonium hydrogen difluoride) | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrogen chloride ; ammonium bifluoride; ammonium hydrogen difluoride) | Corrosive liquid, acidic, inorganic, n.o.s. (hydrogen chloride ; ammonium bifluoride; ammonium hydrogen difluoride) | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrogen chloride ; ammonium bifluoride; ammonium hydrogen difluoride) | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrogen chloride ; ammonium bifluoride; ammonium hydrogen difluoride) |
| Transport document description | | | | |
| UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrogen chloride ; ammonium bifluoride; ammonium hydrogen difluoride), 8, III, (E) | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrogen chloride ; ammonium bifluoride; ammonium hydrogen difluoride), 8, III | UN 3264 Corrosive liquid, acidic, inorganic, n.o.s. (hydrogen chloride ; ammonium bifluoride; ammonium hydrogen difluoride), 8, III | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrogen chloride ; ammonium bifluoride; ammonium hydrogen difluoride), 8, III | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrogen chloride ; ammonium bifluoride; ammonium hydrogen difluoride), 8, III |
| 14.3. Transport hazard class(es) | | | | |
| 8 | 8 | 8 | 8 | 8 |
|  |  |  |  |  |
| 14.4. Packing group | | | | |
| III | III | III | III | III |
| 14.5. Environmental hazards | | | | |
| Dangerous for the environment: No | Dangerous for the environment: No Marine pollutant: No EmS-No. (Fire): F-A EmS-No. (Spillage): S-B | Dangerous for the environment: No | Dangerous for the environment: No | Dangerous for the environment: No |
| No supplementary information available | | | | |

14.6. Special precautions for user

Overland transport

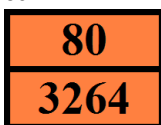
| | |
|---|---------------------------|
| Classification code (ADR) | : C1 |
| Special provisions (ADR) | : 274 |
| Limited quantities (ADR) | : 5I |
| Excepted quantities (ADR) | : E1 |
| Packing instructions (ADR) | : P001, IBC03, LP01, R001 |
| Mixed packing provisions (ADR) | : MP19 |
| Portable tank and bulk container instructions (ADR) | : T7 |
| Portable tank and bulk container special provisions (ADR) | : TP1, TP28 |
| Tank code (ADR) | : L4BN |
| Vehicle for tank carriage | : AT |
| Transport category (ADR) | : 3 |
| Special provisions for carriage - Packages (ADR) | : V12 |

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Hazard identification number (Kemler No.) : 80
Orange plates :



Tunnel restriction code (ADR) : E
EAC code : 2X
APP code : B

Transport by sea

Special provisions (IMDG) : 223, 274
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP1, TP28
Stowage category (IMDG) : A
Stowage and handling (IMDG) : SW2
Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y841
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 852
PCA max net quantity (IATA) : 5L
CAO packing instructions (IATA) : 856
CAO max net quantity (IATA) : 60L
Special provisions (IATA) : A3
ERG code (IATA) : 8L

Inland waterway transport

Classification code (ADN) : C1
Special provisions (ADN) : 274
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : C1
Special provisions (RID) : 274
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Packing instructions (RID) : P001, IBC03, LP01, R001
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T7
Portable tank and bulk container special provisions (RID) : TP1, TP28
Tank codes for RID tanks (RID) : L4BN
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 80

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items: Ammonium hydrogen fluoride or ammonium bifluoride (1341-49-7).

Detergent Regulation (648/2004)

| Labelling of contents | |
|-----------------------|-----|
| Component | % |
| non-ionic surfactants | <5% |

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

| Name | CN designation | CAS-No. | CN code | Category, Subcategory | Threshold | Annex |
|-------------------|-------------------|-----------|------------|-----------------------|-----------|---------|
| Hydrochloric acid | Hydrogen chloride | 7647-01-0 | 2806 10 00 | Category 3 | | Annex I |

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

| Indication of changes | | |
|-----------------------|------------------------------|-----------------|
| Section | Changed item | Comments |
| | Supersedes | Modified |
| | Revision date | Modified |
| 1.1 | UFI on SDS 1.1 | Added |
| 1.2 | Use of the substance/mixture | Modified |
| 1.2 | Function or use category | Removed |

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| Indication of changes | | |
|-----------------------|---|-----------------|
| Section | Changed item | Comments |
| 2.1 | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Modified |
| 2.2 | Precautionary statements (CLP) | Modified |
| 2.2 | Hazard statements (CLP) | Modified |
| 2.2 | Hazard pictograms (CLP) | Modified |
| 3 | Composition/information on ingredients | Modified |
| 8.2 | Eye protection | Modified |
| 8.2 | Skin and body protection | Modified |
| 9 | Relative density | Added |
| 9 | Odour threshold [ppm] | Added |
| 9 | Upper explosive limit (UEL) | Added |
| 9 | Lower explosive limit (LEL) | Added |
| 9 | Partition coefficient n-octanol/water (Log Kow) | Added |
| 9 | Vapour pressure at 50°C | Added |
| 9 | Vapour pressure | Added |
| 9 | Relative vapour density at 20°C | Added |
| 9 | Auto-ignition temperature | Added |
| 9 | Concentration of the solution used for the pH measurement | Added |
| 9 | Flash point | Added |
| 9 | Freezing point | Added |
| 9 | Melting point | Removed |
| 9 | Boiling point | Modified |
| 9 | Flammability (solid, gas) | Modified |
| 9.1 | Decomposition temperature | Added |
| 11.1 | ATE CLP (oral) | Modified |

| Abbreviations and acronyms: | |
|-----------------------------|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC50 | Median effective concentration |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |

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| Abbreviations and acronyms: | |
|-----------------------------|---|
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| OECD | Organisation for Economic Co-operation and Development |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| STP | Sewage treatment plant |
| TLM | Median Tolerance Limit |
| SDS | Safety Data Sheet |
| vPvB | Very Persistent and Very Bioaccumulative |
| BLV | Biological limit value |
| BOD | Biochemical oxygen demand (BOD) |
| COD | Chemical oxygen demand (COD) |
| EC-No. | European Community number |
| EN | European Standard |
| OEL | Occupational Exposure Limit |
| ThOD | Theoretical oxygen demand (ThOD) |
| VOC | Volatile Organic Compounds |
| CAS-No. | Chemical Abstract Service number |
| N.O.S. | Not Otherwise Specified |
| ED | Endocrine disruptor |

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information

: DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

| Full text of H- and EUH-statements: | |
|-------------------------------------|-------------------------------------|
| Acute Tox. 3 (Dermal) | Acute toxicity (dermal), Category 3 |
| Acute Tox. 3 (Inhalation) | Acute toxicity (inhal.), Category 3 |

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| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| EUH210 | Safety data sheet available on request. |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| H290 | May be corrosive to metals. |
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H335 | May cause respiratory irritation. |
| Met. Corr. 1 | Corrosive to metals, Category 1 |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1, Sub-Category 1B |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT SE 3 | Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation |

| Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]: | | |
|---|------|--------------------|
| Met. Corr. 1 | H290 | Expert judgement |
| Skin Corr. 1B | H314 | Calculation method |
| Eye Dam. 1 | H318 | Calculation method |

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.