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

**1.1 Product identifier**

| | |
|---|---|
| Chemical name/ trade name: | **Antifreeze HD** |
| UFI: | T52A-AJHH-UNNG-X1U9 |
| Producer: | **OMA CZ, a.s.** |
| Address: | **Stráž pod Ralskem, 47127, Borová 103** |
| Distributor: | **OMA CZ, a.s.** |
| Address: | **Stráž pod Ralskem, 47127, Borová 103** |

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

| | |
|---|---|
| Intended use: | Coolant for buses and trucks |
| Uses advised against: | Use should be limited to those listed above. |

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

| | |
|---|---|
| Supplier of SDS: | OMA CZ, a.s. |
| Address: | Stráž pod Ralskem, 47127, Borová 103 |
| Identification No.: | 25406761 |
| Tel: | +420 487 851 016 |
| www: | www.omacz.cz |
| Responsible person for this SDS: | OMA CZ, a.s., laborator@omacz.cz |

**1.4 Emergency telephone number**

**National Poisons Information Service (NPIS), Royal Infirmary of Edinburgh, Edinburgh EH16 4SA, United Kingdom, Tel.: +44 121 507 4123, 844 892 0111**

## SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture**

**Classification according to the EC Regulation No. 1272/2008 (CLP):**

STOT RE 2; Specific target organ toxicity (repeated exposure), category 2, H373

Acute Tox. 4; Acute Toxicity, category 4, H302

**2.2 Label elements**

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

Hazard pictogram(s):

| | |
|---|---|
| Signal word(s): | WARNING |
| UFI: | T52A-AJHH-UNNG-X1U9 |
| Contain: | Ethane-1,2-diol, Sodium nitrite, Disodium tetraborate, decahydrate |
| Hazard statement(s): | H302 Harmful if swallowed.<br>H373 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>. |

Precautionary statement(s):

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves / protective clothing / eye protection.
P314 Get Medical advice/attention if you feel unwell.
P501 Dispose of contents / container as hazardous waste.

Supplemental information:

**2.3 Other hazards**

This product does not contain any substances which are classified as PBT or vPvB in a concentration of 0.1% by weight or higher.
The product contains SVHC-substance Disodium tetraborate, decahydrate.
This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures**

| Name of the component | Content (weight %) | CAS<br>EINECS<br>Index N°<br>Reg. Number | Classification according to Regulation (EC) No. 1278/2008 (CLP) | |
|---|---|---|---|---|
| Ethane-1,2-diol * | > 91 - < 95 | 107-21-1<br>203-473-3<br>603-027-00-1<br>01-2119456816-28-0000 | Acute Tox. 4<br>STOT RE 2 | H302<br>H373 |
| Sodium nitrite | 0,4 - < 0,5 | 7632-00-0<br>231-555-9<br>007-010-00-4<br>01-2119471836-27-0000 | Acute Tox. 3<br>Aquatic Acute 1<br>Ox. Sol. 3 | H301<br>H400<br>H272 |
| Disodium tetraborate, decahydrate | 0.2 | 1303-96-4<br>603-411-9<br>01-2119490790-32-0001 | Eye Irrit. 2<br>Repr. 1B<br>*SCL: C ≥ 8,5%* | H319<br>H360FD |

** Substance with a Community workplace exposure limit.*

For full text of H-statements see SECTION 16.

## SECTION 4: First aid measures

**4.1 Description of first aid measures**

General advice:
In all cases of doubt, or when feeling unwell, seek medical advice and show this safety data sheet or the label. Do not eat, drink or smoke while working. Follow the principles of personal hygiene. Wash contaminated clothing and wash before reuse.
Inhalation:
Move the affected person to fresh air, keep him calm, avoid hypothermia. Seek medical advice, if any problems occurs.
Skin contact:
Take off contaminated clothing and wash affected with plenty of soap and water.
Eye contact:
Immediately flush eyes with running water, open eyelids. If contact lenses are worn, carefully remove them and continue rinsing, the affected eye wide open from the inner corner to the outer one, so that the other eye is not hit and also under the lids for min. 15 minutes. If symptoms persist, seek professional medical attention.
Ingestion:
Rinse mouth with water, do not induce vomiting. Do not give anything by mouth to an unconscious person; place the person in a stabilized position and seek medical attention immediately.

Protection of first aiders:
Pay attention to personal safety during rescue work.

**4.2 Most important symptoms and effects, both acute and delayed**
Harmful if swallowed. May cause organ damage if prolonged or repeated exposure.

**4.3 Indication of any immediate medical attention and special treatment needed**
Decontamination, symptomatic treatment.

## SECTION 5: Firefighting measures

**5.1 Extinguishing media**

| | |
|---|---|
| Suitable extinguishing media: | Foam, extinguishing powder, CO2, water mist. |
| Unsuitable extinguishing media: | Direct water jet - Fire could spread. |

**5.2 Special hazards arising from the substance or mixture**
Combustion products and hazardous gases: smoke, carbon monoxide, carbon dioxide. Remove closed containers, if possible, near fire and cool with water spray. If heated excessively (fire), containers may explode due to heat.

**5.3 Advice for firefighters**
Emergency units exposed to smoke or vapors must be equipped with respiratory and eye protection, protective clothing. Self-contained breathing apparatus must be worn when working in confined spaces. Cool containers exposed to fire with water spray. Do not spray water directly into the container to prevent excessive foaming. Collect fire-fighting water separately and prevent it from entering water and soil.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**
Avoid contamination of clothing and footwear with the product and contact with skin and eyes. Wear suitable protective clothing, replace contaminated clothing. Ensure ventilation of the affected area. Keep all persons not involved in rescue operations to a safe distance.

**6.2 Environmental precautions**
Prevent leakage into the environment, soil, prevent penetration into surface waters and sewers. In case of leakage, immediately inform the watercourse / sewerage administrator and the competent authorities.

**6.3 Methods and material for containment and cleaning up**
In the event of a leak, locate and, if possible, drain the product or remove it mechanically, withdraw from the water surface. Residues or small amounts should be soaked up in a suitable sorbent (diatomaceous earth, sand) and placed in suitable marked containers and handed over for recycling / disposal in accordance with applicable regulations. Wash with plenty of water.

**6.4 Reference to other sections**
see sections 7, 8 and 13.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling**
Avoid contact with skin and eyes. Use suitable PPE. Use only in well-ventilated areas with fresh air supply. Do not eat, drink or smoke while working. Wash your hands after work. Do not breathe fumes. Observe the legal regulations on occupational safety and health. All fire precautions must be observed during handling.

**7.2 Conditions for safe storage, including any incompatibilities**
Store in well-closed original packaging in a dry, cool and well-ventilated place places. Store in an upright position to prevent leaks and drips. Store separately from food, feed and medicine.

**7.3 Specific end use(s)**
see section 1.2

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Exposure limits: According to national legislation of target country.

| Substance | CAS | Permissible exposure limits (mg/m³) | Maximum permissible concentration (mg/m³) | Note |
|---|---|---|---|---|
| Ethane-1,2-diol | 107-21-1 | rticulate. 52 va | rticulate. 104 vap | |
| Sodium-hydroxide | 1310-73-2 | - | 2 | |

Substances with Community Exposure Limits:

| Substance | CAS | Limit values (mg/m³) | | Note |
|---|---|---|---|---|
| | | OEL | STEL | |
| Ethylene glycol | 107-21-1 | 52 | 104 | *Dermal* |

**DNEL**

**Ethane-1,2-diol (CAS: 107-21-1)**

| Exposed group and route of exposure | Duration of exposure | Type of effect | Unit | Value |
|---|---|---|---|---|
| **Workers** | | | | |
| | Short-term (acute) | systemic | mg/m³ | 35 |
| **Dermal** | Long-term (chronic) | systemic | mg/kg bw/d | 106 |
| **Consumers** | | | | |
| | Short-term (acute) | systemic | mg/m³ | 7 |
| **Dermal** | Long-term (chronic) | systemic | mg/kg bw/d | 53 |

**Sodium nitrite (CAS: 7632-00-0)**

| Exposed group and route of exposure | Duration of exposure | Type of effect | Unit | Value |
|---|---|---|---|---|
| **Workers** | | | | |
| **Inhalation** | Long-term (chronic) | systemic | mg/m³ | 2 |
| **Consumers** | | | | |

**Disodium tetraborate, decahydrate (CAS: 1303-96-4)**

| Exposed group and route of exposure | Duration of exposure | Type of effect | Unit | Value |
|---|---|---|---|---|
| **Workers** | | | | |
| **Inhalation** | Long-term (chronic) | systemic | mg/m³ | 6.7 |
| | Short-term (acute) | systemic | mg/m³ | 17.04 |
| **Dermal** | Long-term (chronic) | systemic | mg/kg bw/d | 316.4 |
| **Consumers** | | | | |

| | | | | |
|---|---|---|---|---|
| **Inhalation** | Long-term (chronic) | systemic | mg/m³ | 3.4 |
| | Short-term (acute) | systemic | mg/m³ | 17.04 |
| **Dermal** | Long-term (chronic) | systemic | mg/kg bw/d | 159.5 |
| **Oral** | Long-term (chronic) | systemic | mg/kg bw/d | 0.79 |

**PNEC**

**Ethane-1,2-diol (CAS: 107-21-1)**

| **Component of the environment** | | **PNEC** | **Unit** | **Value** |
|---|---|---|---|---|
| **Water environment** | Freshwater | $PNEC_{water, fresh.}$ | mg/L | 10 |
| | Freshwater, occasional leakage | $PNEC_{water, fresh.}$ | mg/L | 10 |
| | Freshwater sediment | $PNEC_{sed., fresh.}$ | mg/kg sediment dw | 37 |
| | Seawater | $PNEC_{water, mar.}$ | mg/L | 1 |
| | Marine sediment | $PNEC_{sed., mar.}$ | mg/kg sediment dw | 3.7 |
| **Microbiological activity** | Wastewater treatment plant | $PNEC_{sew. treat.}$ | mg/L | 199.5 |
| **Terrestrial environment / organisms** | Soil | $PNEC_{soil}$ | mg/kg soil dw | 1.53 |

**Sodium nitrite (CAS: 7632-00-0)**

| **Component of the environment** | | **PNEC** | **Unit** | **Value** |
|---|---|---|---|---|
| **Water environment** | Freshwater | $PNEC_{water, fresh.}$ | mg/L | 0.005 |
| | Freshwater, occasional leakage | $PNEC_{water, fresh.}$ | mg/L | 0.005 |
| | Freshwater sediment | $PNEC_{sed., fresh.}$ | mg/kg sediment dw | 0.019 |
| | Seawater | $PNEC_{water, mar.}$ | mg/L | 0.006 |
| | Marine sediment | $PNEC_{sed., mar.}$ | mg/kg sediment dw | 0.022 |
| **Microbiological activity** | Wastewater treatment plant | $PNEC_{sew. treat.}$ | mg/L | 21 |
| **Terrestrial environment / organisms** | Soil | $PNEC_{soil}$ | mg/kg soil dw | 0.001 |

**Disodium tetraborate, decahydrate (CAS: 1303-96-4)**

| **Component of the environment** | | **PNEC** | **Unit** | **Value** |
|---|---|---|---|---|
| **Water environment** | Freshwater | $PNEC_{water, fresh.}$ | mg/L | 2.9 |
| | Freshwater, occasional leakage | $PNEC_{water, fresh.}$ | mg/L | 13.7 |
| | Seawater | $PNEC_{water, mar.}$ | mg/L | 2.9 |
| **Microbiological activity** | Wastewater treatment plant | $PNEC_{sew. treat.}$ | mg/L | 10 |
| **Terrestrial environment / organisms** | Soil | $PNEC_{soil}$ | mg/kg soil dw | 5.7 |

**8.2 Exposure controls**

Technical measures: Technical measures and appropriate working procedures take precedence over personal protective equipment.

**Individual protection measures**

Respiratory protection: If the exposure limit values are exceeded or a mist / vapor / aerosol are generated, use a mask with an A / P filter in accordance with EN ISO 14387 + A1.

Hand protection: Protective work gloves resistant to chemicals according to EN ISO 374.

Eye / face protection: Wear safety goggles with side shields or face shield, according to EN ISO 166.

Skin protection: Workwear (EN ISO 13688) and footwear (EN ISO 20347).

Thermal hazards: Flammable liquid and vapour.

Environmental exposure controls: Avoid unnecessary releases to the environment.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| Property | Value | | Method |
|---|---|---|---|
| Physical state: | Liquid | | |
| Colour: | Blue-green | | |
| Odour: | No data available. | | |
| Odour threshold: | No data available. | | |
| pH : | 9 (100%) | | |
| Melting point / freezing point (°C): | --/-20 | | |
| Boiling point or initial boiling point and boiling range (°C): | 170 | | |
| Flash point (°C): | > 110 | | |
| Evaporation rate: | No data available. | | |
| Flammability (gases, liquids and solids): | Flammable liquid. | | |
| Lower and upper explosion limit: | No data available. | | |
| Vapour pressure (20 °C): | No data available. | | |
| Vapour pressure (50 °C): | No data available. | | |
| Relative vapour density: | No data available. | | |
| Density and/or relative density (g/cm³, 20 °C): | 1.11 | | |
| Solubility (20 °C): | No data available. | | |
| Partition coefficient n-octanol/water (log value): | No data available. | | |
| Auto-ignition temperature: | No data available. | | |
| Decomposition temperature: | No data available. | | |
| Kinematic viscosity: | No data available. | | |
| Refractive index (20 °C): | No data available. | | |
| Oxidising properties: | No data available. | | |
| Explosive properties: | No data available. | | |

### 9.2 Other information

VOC (%): 0

Dry matter content: No data available.

Additional information: No data available.

#### 9.2.1 Information with regard to physical hazard classes

The product has no physical hazards.

#### 9.2.2 Other safety characteristics

No data available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

It is not expected under the correct conditions of use.

### 10.2 Chemical stability

The mixture is stable under recommended use, handling and storage.

### 10.3 Possibility of hazardous reactions

There is no risk of dangerous reactions.

**10.4 Conditions to avoid**

Comply with the handling and storage conditions set out in Section 7

**10.5 Incompatible materials**

Strong oxidizing agents, strong acids and bases.

**10.6 Hazardous decomposition products**

Hazardous decomposition products are not known.

## SECTION 11: Toxicological information

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

**Ethane-1,2-diol (CAS: 107-21-1)**

Acute toxicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| key study | 7 712 mg/kg bw LD50 | oral: gavage | rat |
| key study | > 3 500 mg/kg bw LD50 | dermal | mouse |
| key study | > 2.5 mg/L air | inhalation: aerosol | rat |

Serious eye damage / irritation:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| key study | not irritating | Eye | rabbit |

Skin corrosion / irritation:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| key study | not irritating | Skin | rabbit |

Respiratory or skin sensitisation:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| weight of evidence | GHS criteria not met | Skin | human |

STOT - single exposure:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| | No data available. | | |

STOT - repeated exposure:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| 408, weight of evidence | 150 mg/kg bw/day (nominal) NOEL | oral | rat |

Carcinogenicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| weight of evidence | 1 500 mg/kg bw/day NOAEL | oral: feed | mouse |

Germ cell mutagenicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| key study | ambiguous | In vitro | Chinese hamster Ovary (CHO) |

Reproductive toxicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| weight of evidence | > 1 000 mg/kg bw/day NOAEL | oral: feed | rat |

Aspiration hazard:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| | No data available. | | |

**Sodium nitrite (CAS: 7632-00-0)**

Acute toxicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| supporting study | 180 mg/kg bw | gastric intubation | rat |
| supporting study | 0.095 mg/L air | inhalation: aerosol | rat |

Serious eye damage / irritation:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| OECD 405, weight of evidence | moderately irritating | Eye | rabbit |

Skin corrosion / irritation:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| OECD 404, weight of evidence | not irritating | Skin | rabbit |

Respiratory or skin sensitisation:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| | No data available. | | |

STOT - single exposure:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| | No data available. | | |

STOT - repeated exposure:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| weight of evidence | 115 mg/kg bw/day (nominal), LOAEL<br>225 mg/kg bw/day (nominal), LOAEL | oral | rat |

Carcinogenicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| weight of evidence | 130 mg/kg bw/day (nominal), NOAEL<br>150 mg/kg bw/day (nominal), NOAEL | oral: drinking water | rat |

Germ cell mutagenicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| weight of evidence | negative | intraperitoneal | rat |

Reproductive toxicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| weight of evidence | 425 mg/kg bw/day, NOAEL<br>260 mg/kg bw/day, NOAEL | oral: drinking water | mouse |

Aspiration hazard:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| | No data available. | | |

**Disodium tetraborate, decahydrate (CAS: 1303-96-4)**

Acute toxicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| OECD 401, key study | > 2 500 mg/kg bw, LD50 | oral: gavage | rat |
| key study | > 2 000 mg/kg bw, LD50 | dermal | rabbit |
| OECD 403, key study | > 2.04 mg/L air (nominal) | inhalation: dust | rat |

Serious eye damage / irritation:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| OECD 405, key study | Category 2 (irritating to eyes) based on GHS criteria | Eye | rabbit |

Skin corrosion / irritation:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| key study | not irritating | Skin | rabbit |

Respiratory or skin sensitisation:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| OECD 406, key study | not sensitising | Skin | guinea pig |

STOT - single exposure:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| | No data available. | | |

STOT - repeated exposure:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| key study | 100 mg/kg bw/day (nominal), NOAEL<br>334 mg/kg bw/day (nominal), LOAEL<br>17.5 mg/kg bw/day (nominal), NOAEL<br>58.5 mg/kg bw/day (nominal), LOAEL | oral | rat |
| key study | 470 mg/m³ air (nominal), NOAEC<br>175 mg/m³ air (nominal), NOAEC<br>57 mg/m³ air (nominal), NOAEC | inhalation | other: rats and dogs (only females) |

Carcinogenicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| OECD 451, key study | > 5 000 ppm (nominal), NOEL | oral: feed | mouse |

Germ cell mutagenicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| OECD 474, key study | negative | oral: gavage | mouse |

Reproductive toxicity:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| key study | 155 mg/kg bw/day, NOAEL<br>518 mg/kg bw/day, LOAEL<br>17.5 mg/kg bw/day, NOAEL<br>58.5 mg/kg bw/day, LOAEL<br>155 mg/kg bw/day, NOAEL<br>17.5 mg/kg bw/day, NOAEL<br>155 mg/kg bw/day, NOAEL<br>17.5 mg/kg bw/day, NOAEL | oral: feed | rat |

Aspiration hazard:

| Test type | Results | Exposure | Tested organisms |
|---|---|---|---|
| | No data available. | | |

**mixture**

| | |
|---|---|
| Acute toxicity: | Harmful if swallowed. |
| Serious eye damage / irritation: | The product does not meet the criteria for classification. |
| Skin corrosion / irritation: | The product does not meet the criteria for classification. |
| Respiratory or skin sensitisation: | The product does not meet the criteria for classification. |
| STOT - single exposure: | The product does not meet the criteria for classification. |
| STOT - repeated exposure: | May cause damage to organs through prolonged or repeated exposure . |
| Carcinogenicity: | The product does not meet the criteria for classification. |
| Germ cell mutagenicity: | The product does not meet the criteria for classification. |
| Reproductive toxicity: | The product does not meet the criteria for classification. |
| Aspiration hazard: | The product does not meet the criteria for classification. |

**11.2 Information on other hazards**

**Endocrine disrupting properties**

This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.

**Other information**

No data available.

## SECTION 12: Ecological information

**12.1 Toxicity**

The product does not meet the criteria for classification.

**Ethane-1,2-diol (CAS: 107-21-1)**

| Toxicity | Tested organisms | Results | Test type |
|---|---|---|---|
| Acute toxicity to fish | *Pimephales promelas* | > 72 860 mg/L LC50 / 96 h | |
| Acute toxicity to invertebrates | *Daphnia magna* | > 100 mg/L EC50 / 48 h | 202 |
| Acute toxicity to aquatic algae | *Pseudokirchneriella subcapitata* | > 100 mg/L NOEC / 72 h | 201 |

**Sodium nitrite (CAS: 7632-00-0)**

| Toxicity | Tested organisms | Results | Test type |
|---|---|---|---|
| Acute toxicity to fish | *Oncorhynchus mykiss* | 0.54 - 26.3 mg/L, LC50 / 96 h | |
| Acute toxicity to invertebrates | *Daphnia magna* | 4.6 mg/L, EC0 / 48 h<br>15.4 mg/L, EC50 / 48 h<br>> 100 mg/L, EC100 / 48 h | OECD 202 |
| Acute toxicity to aquatic algae | *Desmodesmus subspicatus* | > 100 mg/L, EC50 / 72 h<br>100 mg/L, NOEC / 72 h | OECD 201 |

**Disodium tetraborate, decahydrate (CAS: 1303-96-4)**

| Toxicity | Tested organisms | Results | Test type |
|---|---|---|---|
| Acute toxicity to fish | *Pimephales promelas* | 79.7 mg/L, LC50 / 96 h | |
| Acute toxicity to invertebrates | *other aquatic arthropod: Allocaphnia vivipara (Insecta, stonefly)* | 476 mg/L, LC50 / 96 h | |
| Acute toxicity to aquatic algae | *Phaeodactylum tricornutum* | 50.7 mg/L, EC10 / 72 h<br>66 mg/L, EC50 / 72 h<br>27.9 mg/L, NOEC / 72 h<br>41.8 mg/L, EC10 / 72 h<br>54 mg/L, EC50 / 72 h<br>27.9 mg/L, NOEC / 72 h<br>70.1 mg/L, LOEC / 62.4 h | |

**12.2 Persistence and degradability**

Easily biodegradable.

**12.3 Bioaccumulative potential**

Not given.

**12.4 Mobility in soil**

Soluble / miscible with water.

**12.5 Results of PBT and vPvB assessment**

This product does not contain any substances which are classified as PBT or vPvB in a concentration of 0.1% by weight or higher.

**12.6 Endocrine disrupting properties**

This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.

**12.7 Other adverse effects**

In larger quantities, the mixture is hazardous to water. Under normal handling, the mixture shows no anomalies in biological treatment plants.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

| | |
|---|---|
| Catalogue No. of substance/mixture waste: | 16 01 14 Antifreeze fluids containing dangerous substances |
| Waste codes / waste designations according to LoW: | 15 01 02 Plastic packaging<br>15 01 10 Packaging containing residues of or contaminated by dangerous substances |
| Recommended procedure for substance/mixture waste disposal: | Collect the remnants of the mixture in marked containers and hand over for disposal to a person authorized to handle hazardous waste. Appropriate disposal: incineration in a hazardous waste incinerator. If possible, regenerate the product. |
| Recommended procedure for packaging disposal: | Empty packaging must be disposed of by the waste producer in accordance with the applicable waste legislation. After perfect cleaning, the packaging can be used as a secondary raw material for the same purpose. Recommended method of disposal of recycling, incineration in a hazardous waste incinerator or landfilling of hazardous waste |
| Physical / chemical properties that may affect waste treatment method: | Handle empty containers with care, as any residual fumes are flammable. |
| Sewage disposal-relevant information: | Protect against weathering. Prevent waste from entering water / soil / sewage system. Inform respective authorities in case of leakage. |
| Other disposal recommendations: | Dispose of in accordance with applicable legislation. |

## SECTION 14: Transport information

| | Type of transport | Land transport ADR / RID | Sea transport IMDG | Air Transport ICAO / IATA |
|---|---|---|---|---|
| 14.1 | UN number or ID number | There is no dangerous good in terms of transport. | There is no dangerous good in terms of transport. | There is no dangerous good in terms of transport. |
| 14.2 | UN proper shipping name | | | |
| 14.3 | Transport hazard class(es) | | | |
| | Classification code | - | - | - |
| | Labels | | | |

| | | | | |
|---|---|---|---|---|
| | | | | |
| **14.4** | **Packing group** | | | |

**14.5 Environmental hazards**

No data available.

**14.6 Special precautions for user**

No data available.

**14.7 Maritime transport in bulk according to IMO instruments**

Transport is carried out in approved and suitable packaging.

**Other information**

| Type of transport | Land transport ADR / RID | Sea transport IMDG | Air Transport ICAO / IATA |
|---|---|---|---|
| Limited quantities: | | | |
| Excepted quantities: | | | |
| Transport category: | | - | - |
| Tunnel restriction code: | | - | - |
| Segregation group: | - | | - |

## SECTION 15: Regulatory information

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

Regulation (EC) No. 1272/2008 (CLP) on classification, labelling and packaging of substances and mixtures,…
Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH),…
Applicable national regulations.

The product contains SVHC-substance Disodium tetraborate, decahydrate.

**15.2 Chemical safety assessment**

A chemical safety assessment has not been performed.

## SECTION 16: Other information

**Complete text of all classifications and hazard classes referred to in SECTION 3**

**Hazard class:**

Acute Tox. 3 - Acute Toxicity, category 3
Acute Tox. 4 - Acute Toxicity, category 4
Aquatic Acute 1 - Acute aquatic toxicity, category 1
Eye Irrit. 2 - Eye irritation, category 2
Ox. Sol. 2 - Oxidising solids, category 2
Repr. 1B - Reproductive toxicity, category 1B
STOT RE 2 - Specific target organ toxicity (repeated exposure), category 2

**H-statements:**

H272 May intensify fire; oxidiser.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H360FD May damage fertility. May damage the unborn child.

H373 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
H400 Very toxic to aquatic life.

**Abbreviations:**

| | |
|---|---|
| ADN | Inland waterways |
| ADR | Accord Dangereuses Route |
| CAS | Chemical Abstracts Service |
| DNEL | Derived no-effect level |
| EC50 | Effect concentration for 50% |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| IATA | International Air Transport Association |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Lethal concentration for 50% |
| LD50 | Lethal dose for 50% |
| LOAEL | Lowest observable adverse effect level |
| LOEC | Lowest observable effect concentration |
| NOAEC | No observable adverse effect concentration |
| NOAEL | No observable adverse effect level |
| NOEC | No observable effect concentration |
| NOEL | No observable effect level |
| NPK-P | Maximum permissible concentration |
| OEL | Occupational Exposure Limit (workplace exposure limit - 8 hours / shift) |
| PBT | Persistent, bioacumulative and toxic |
| PEL | Permissible exposure limits |
| PNEC | Predicted no-effect concentration |
| RID | Regulations for the International Carriage of Dangerous Goods by Rail |
| SCL | Specific concentration limits |
| STEL | Short Term Exposure Limit (short exposure - corresponds to approx. 15 min.) |
| VOC | Volatile organic substances |
| vPvB | Very persistent and very bioacumulative |
| WGK | Hazard classes for water (Wassergefährdungsklassen) |

**Changes from the previous version of the MSDS:**

New SDS based on Commission Regulation (EU) 2020/878. The classification has been carried out by the calculation method.

Classification was based on test data.

**Instructions for training**
Workers who come into contact with dangerous substances must be acquainted, to the extent necessary, with the effects of these substances, with the ways of handling them, with protective measures.
They must also be acquainted with the principles of first aid, with the necessary remediation procedures and with the procedures for the liquidation of failures and accidents.
The person handling this chemical product must be familiar with the safety rules and data given in the safety data sheet.

Persons transporting dangerous substances must be familiar with the instructions in the event of an accident in accordance with ADR / RID regulations.

**Other information**
The above information describes the conditions for safe handling of the product and corresponds to the current knowledge of the manufacturer, serves as guidelines for the training of persons handling the product.
The manufacturer bears the warranty for the above-described product properties in the recommended way of use.

The user is responsible for determining the suitability of the product for specific purposes and adapting the safety precautions if this use is contrary to the manufacturer's recommendations.