Tana-Chemie GmbH
Werner & Mertz Group

# ENERGY UNI

**WM 1115969** **Order number: 0715969**

Version 1.12 Revision Date 13.03.2025 Print Date 23.10.2025

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

### 1.1 Product identifier

| | | |
|---|---|---|
| Trade name | : | ENERGY UNI |
| UFI | : | 1609-909F-W009-7JEM |

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

| | | |
|---|---|---|
| Use of the Substance/Mixture | : | detergents for dishwashers<br><br>Restricted to professional users. |

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

| | | |
|---|---|---|
| Company | : | Tana Chemie GmbH<br>Rheinallee 96<br>55120 Mainz |
| Telephone | : | +49613196403 |
| Telefax | : | +4961319642414 |
| E-mail address | : | Produktsicherheit@werner-mertz.com |
| Responsible/issuing person | | |
| Contact person | : | Product development / product safety |

### 1.4 Emergency telephone number

+49(0)551-19240

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

| | |
|---|---|
| Corrosive to metals, Category 1 | H290: May be corrosive to metals. |
| Skin corrosion, Category 1 | H314: Causes severe skin burns and eye damage. |
| Serious eye damage, Category 1 | H318: Causes serious eye damage. |

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :

| | | | |
|---|---|---|---|
| Signal word | : | Danger | |
| Hazard statements | : | H290<br>H314 | May be corrosive to metals.<br>Causes severe skin burns and eye damage. |
| Precautionary statements | : | P102 | Keep out of reach of children. |

**Prevention:**

| | |
|---|---|
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |

**Response:**

| | |
|---|---|
| P301 + P330 + P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER/ doctor. |

**Disposal:**

| | |
|---|---|
| P501 | Dispose of container into the collection of recyclables only when it is completely empty. |

Hazardous components which must be listed on the label:

sodium hydroxide
potassium hydroxide

Safety data sheet available on request.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Components**

| Chemical name | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification | Concentration (% w/w) |
|---|---|---|---|
| sodium hydroxide | 1310-73-2<br>215-185-5<br>011-002-00-6<br>01-2119457892-27 | Met. Corr. 1; H290<br>Skin Corr. 1A; H314<br>Eye Dam. 1; H318<br>---<br>specific concentration limit<br>Skin Corr. 1A; H314<br>>= 5 %<br>Skin Corr. 1B; H314<br>2 - < 5 %<br>Skin Irrit. 2; H315<br>0,5 - < 2 %<br>Eye Irrit. 2; H319<br>0,5 - < 2 % | >= 10 - < 15 |
| potassium hydroxide | 1310-58-3<br>215-181-3<br>019-002-00-8 | Acute Tox. 4; H302<br>Skin Corr. 1A; H314<br>Met. Corr. 1; H290 | >= 5 - < 10 |

| | | | |
|---|---|---|---|
| | 01-2119487136-33 | Eye Dam. 1; H318<br>---<br>specific concentration limit<br>Skin Corr. 1A; H314<br>>= 5 %<br>Skin Corr. 1B; H314<br>2 - < 5 %<br>Skin Irrit. 2; H315<br>0,5 - < 2 %<br>Eye Irrit. 2; H319<br>0,5 - < 2 %<br>---<br>Acute toxicity estimate<br><br>Acute oral toxicity: 500,0 mg/kg | |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.
If symptoms persist, call a physician.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
Protect unharmed eye.
Continue rinsing eyes during transport to hospital.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Take victim immediately to hospital.

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

Symptoms : corrosive effects

Risks : No information available.

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

Treatment : For specialist advice physicians should contact the Poisons Information Service.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Evacuate personnel to safe areas.

### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Neutralise with acid.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For personal protection see section 8., Treat recovered material as described in the section "Disposal considerations"., Refer to section 15 for specific national regulation.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.

| | | |
|---|---|---|
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection. |
| Hygiene measures | : | Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday. |

**7.2 Conditions for safe storage, including any incompatibilities**

| | | |
|---|---|---|
| Requirements for storage areas and containers | : | Store in original container. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store at room temperature in the original container. |
| Further information on storage stability | : | No decomposition if stored and applied as directed. |

**7.3 Specific end use(s)**

| | | |
|---|---|---|
| Specific use(s) | : | detergents for dishwashers |

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

Contains no substances with occupational exposure limit values.

**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:**

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|---|---|---|---|---|
| sodium hydroxide | Workers | Inhalation | Long-term local effects | 1,0 mg/m3 |
| | Workers | Inhalation | Long-term systemic effects, Long-term local effects | 1,5 mg/m3 |
| | Workers | Inhalation | Short-term exposure, Local effects, Systemic effects | 3 mg/m3 |
| | Consumers | Inhalation | Long-term local effects, Long-term systemic effects | 0,6 mg/m3 |
| | Consumers | Inhalation | Short-term exposure, Local effects, Systemic effects | 1,2 mg/m3 |
| | Consumers | Ingestion | Long-term local effects, Long-term systemic effects | 25 mg/m3 |
| potassium hydroxide | Workers | Inhalation | Long-term local effects | 1 mg/m3 |

| | | | | |
|---|---|---|---|---|
| | Consumers | Inhalation | Long-term local effects | 1 mg/m3 |
| Alanine, N,N-bis(carboxymethyl)-, trisodium salt | Workers | Inhalation | Acute systemic effects | 40 mg/m3 |
| | Workers | Inhalation | Acute local effects | 40 mg/m3 |
| | Workers | Inhalation | Long-term systemic effects | 40 mg/m3 |
| | Workers | Inhalation | Long-term local effects | 4 mg/m3 |
| | Consumers | Inhalation | Acute local effects | 20 mg/m3 |
| | Consumers | Inhalation | Acute systemic effects | 20 mg/m3 |
| | Consumers | Inhalation | Long-term systemic effects | 20 mg/m3 |
| | Consumers | Inhalation | Long-term local effects | 2 mg/m3 |
| | Consumers | Ingestion | Acute systemic effects | 85 mg/kg |
| | Consumers | Ingestion | Long-term systemic effects | 17 mg/kg |
| tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | Workers | Inhalation | Acute systemic effects | 55 mg/m3 |
| | Workers | Inhalation | Acute local effects | 55 mg/m3 |
| | Workers | Skin contact | Long-term systemic effects | 15000 mg/kg |
| | Workers | Inhalation | Long-term systemic effects | 7,3 mg/m3 |
| | Consumers | Skin contact | Long-term systemic effects | 7500 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 1,8 mg/m3 |
| | Consumers | Ingestion | Long-term systemic effects | 1,5 mg/kg |

**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:**

| Substance name | Environmental Compartment | Value |
|---|---|---|
| Alanine, N,N-bis(carboxymethyl)-, trisodium salt | Fresh water | 2 mg/l |

| | | |
|---|---|---|
| | Marine water | 0,2 mg/l |
| | Fresh water sediment | 24 mg/kg |
| | Soil | 2,5 mg/kg |
| | STP | 100 mg/l |
| | intermittent release | 1 mg/l |
| tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | Fresh water | > 2 mg/l |
| | Marine water | > 0,2 mg/l |
| | intermittent release | > 1 mg/l |
| | STP | > 41,2 mg/l |
| | Oral | 67 mg/kg |

**8.2 Exposure controls**

**Personal protective equipment**

Eye/face protection : Tightly fitting safety goggles

Hand protection

Material : Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Remove and wash contaminated clothing before re-use.

Respiratory protection : Not required; except in case of aerosol formation.

Recommended Filter type:

ABEK-P3-filter

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | liquid |
| Colour | : | colourless |
| Odour | : | characteristic |
| Melting point/freezing point | : | No data available |
| Boiling point/boiling range | : | No data available |
| Flammability (solid, gas) | : | No data available |
| Flammability (liquids) | : | No data available |
| Lower explosion limit | : | No data available |
| Upper explosion limit | : | No data available |
| Flash point | : | does not flash |
| Ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| pH | : | ca. 12,5, 1 %<br>at 20 °C |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | No data available |
| Water solubility | : | soluble |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Vapour pressure | : | No data available |
| Density | : | ca. 1,383 g/cm3 at 20 °C |
| Relative density | : | No data available |
| Relative vapour density | : | No data available |
| Particle characteristics | : | No data available |

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions.
No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
No decomposition if used as directed.

### 10.4 Conditions to avoid

Conditions to avoid : No data available

### 10.5 Incompatible materials

Materials to avoid : No data available

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

## SECTION 11: Toxicological information

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

Our company is strongly against animal testing.
Our company does not place any orders for animal testing for the finished product or the ingredients.
However, as a result of EU legislation (REACH Regulation), the manufacturers of ingredients or EU importers are obliged to test ingredients with regard to their effects on human health and the environment before they are brought onto the market. Some of the tests made necessary by this took place decades ago.

**Acute toxicity**

**Product:**

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

**Components:**

**sodium hydroxide**

**1310-73-2:**

Acute oral toxicity : LD50 Oral (Rat): 2.000 mg/kg

**potassium hydroxide**

**1310-58-3:**

Acute oral toxicity : LD50 (Rat): 273 mg/kg

Acute toxicity estimate: 500,0 mg/kg
Method: Converted acute toxicity point estimate

LD50 Oral (Rat, male): 333 mg/kg
Method: OECD Test Guideline 425

**Skin corrosion/irritation**

**Product:**

Remarks : Extremely corrosive and destructive to tissue.

**Components:**

**sodium hydroxide**

**1310-73-2:**

Result : Corrosive

**potassium hydroxide**

**1310-58-3:**

Result : Corrosive

**Serious eye damage/eye irritation**

**Product:**

Remarks : May cause irreversible eye damage.

**Components:**

**sodium hydroxide**

**1310-73-2:**

Result : Corrosive

**potassium hydroxide**

**1310-58-3:**

Species : Rabbit
Method : OECD Test Guideline 405
Result : Corrosive

**Respiratory or skin sensitisation**

**Product:**

Remarks : No data available

**Components:**

**potassium hydroxide**

**1310-58-3:**

Species : Guinea pig
Result : Did not cause sensitisation on laboratory animals.

**Germ cell mutagenicity**

Germ cell mutagenicity : Not Rated

**Components:**

**potassium hydroxide**

**1310-58-3:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Ames test<br>Test system: Salmonella typhimurium<br>Result: negative |
| Carcinogenicity | : | Not Rated |
| Reproductive toxicity | : | Not Rated |
| STOT - single exposure | : | The substance or mixture is not classified as specific target organ toxicant, single exposure. |
| STOT - repeated exposure | : | The substance or mixture is not classified as specific target organ toxicant, repeated exposure. |
| Aspiration toxicity | : | Not Rated |

### 11.2 Information on other hazards

**Further information**

**Product:**

Remarks : No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

**Components:**

**sodium hydroxide**

**1310-73-2:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Fish): 33 - 189 mg/l<br>Exposure time: 96 h<br><br>LC50 (Gambusia affinis (Mosquito fish)): 125 mg/l<br>Exposure time: 96 h<br><br>LC50 (Poecilia reticulata (guppy)): 76 mg/l<br>Exposure time: 24 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia (water flea)): 40,4 mg/l<br><br>EC50 (Daphnia magna (Water flea)): 76 mg/l<br>Exposure time: 24 h<br><br>EC50 (Ceriodaphnia (water flea)): 40,4 mg/l<br>Exposure time: 48 h<br>Test Type: Immobilization |

| | | |
|---|---|---|
| Toxicity to microorganisms | : | EC50 (Photobacterium phosphoreum): 22 mg/l<br>Exposure time: 15 min |

**potassium hydroxide**

**1310-58-3:**

| | | |
|---|---|---|
| Toxicity to fish | : | (Pimephales promelas (fathead minnow)): 880 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br><br>LC50 (Gambusia affinis (Mosquito fish)): 80 mg/l<br>Exposure time: 96 h<br><br>LC50 (Poecilia reticulata (guppy)): 165 mg/l<br>Exposure time: 24 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 660 mg/l<br>Exposure time: 48 h<br>Test Type: static test |
| Toxicity to algae/aquatic plants | : | EC50 : 1.337 mg/l<br>Exposure time: 120 h |
| Toxicity to microorganisms | : | EC50 (Photobacterium phosphoreum): 22 mg/l<br>Exposure time: 15 min |
| Toxicity to soil dwelling organisms | : | LC50: 850 mg/kg<br>Exposure time: 90 d |

### 12.2 Persistence and degradability

**Components:**

**sodium hydroxide**

**1310-73-2:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Biodegradable<br>Remarks: The methods for determining the biological degradability are not applicable to inorganic substances. |

**potassium hydroxide**

**1310-58-3:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Biodegradable<br>Remarks: The methods for determining the biological degradability are not applicable to inorganic substances. |

### 12.3 Bioaccumulative potential

**Components:**

**sodium hydroxide**

**1310-73-2:**

| | | |
|---|---|---|
| Bioaccumulation | : | Species: Fish<br>Remarks: No bioaccumulation is to be expected (log Pow <= 4). |

**potassium hydroxide**

**1310-58-3:**

| | | |
|---|---|---|
| Bioaccumulation | : | Remarks: Bioaccumulation is unlikely. |

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Components:**

**potassium hydroxide**
**1310-58-3:**

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

**12.6 Endocrine disrupting properties**

No data available

**12.7 Other adverse effects**

**Product:**

Additional ecological information : There is no data available for this product.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

Waste Code : European Waste Catalogue
20 01 29*
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

## SECTION 14: Transport information

**14.1 UN number or ID number**

**ADR** : 1719
**IMDG** : 1719
**IATA** : 1719

**14.2 UN proper shipping name**

**ADR** : CAUSTIC ALKALI LIQUID, N.O.S.
(sodium hydroxide, potassium hydroxide)

| | | |
|---|---|---|
| **IMDG** | : | CAUSTIC ALKALI LIQUID, N.O.S.<br>(sodium hydroxide, potassium hydroxide) |
| **IATA** | : | Caustic alkali liquid, n.o.s. |

**14.3 Transport hazard class(es)**

| | | |
|---|---|---|
| **ADR** | : | 8 |
| **IMDG** | : | 8 |
| **IATA** | : | 8 |

**14.4 Packing group**

| | | |
|---|---|---|
| **ADR** | | |
| Classification Code | : | C5 |
| Packaging group | : | II |
| Hazard Identification Number | : | 80 |
| Labels | : | 8 |
| Tunnel restriction code | : | (E) |
| **IMDG** | | |
| Packaging group | : | II |
| Labels | : | 8 |
| EmS Number | : | F-A, S-B |
| **IATA** | | |
| **(Cargo)** | : | Caustic alkali liquid, n.o.s. |
| Packaging group | : | II |
| Labels | : | 8 |

**14.5 Environmental hazards**

| | | |
|---|---|---|
| **ADR** | | |
| Environmentally hazardous | : | no |
| **IMDG** | | |
| Marine pollutant | : | no |
| **IATA** | | |
| Environmentally hazardous | : | no |

**14.6 Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

For personal protection see section 8.

14.7 Maritime transport in bulk according to IMO instruments
Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

| | | |
|---|---|---|
| Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals | : | Not applicable |
| REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) | : | See Annex XVII to Regulation (EC) no 1907/2006 for Conditions of restriction |
| Seveso III: Directive 2012/18/EU | : | Not applicable |

of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

| | | |
|---|---|---|
| TA Luft List (Germany) | : | Total dust: Not applicable |
| | : | Inorganic substances in powdered form: Not applicable |
| | : | Inorganic substances in vapour or gaseous form: Not applicable |
| | : | Organic Substances: Not applicable |
| | : | Carcinogenic substances: Not applicable |
| | : | Mutagenic: Not applicable |
| | : | Toxic to reproduction: Not applicable |
| Volatile organic compounds (VOC) content | : | Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)<br>Update: Not applicable |
| according to Detergents Regulation EC 648/2004 | : | <5% phosphonates, polycarboxylates |

**15.2 Chemical safety assessment**

## SECTION 16: Other information

**Full text of H-Statements**

| | | |
|---|---|---|
| H290 | : | May be corrosive to metals. |
| H302 | : | Harmful if swallowed. |
| H314 | : | Causes severe skin burns and eye damage. |
| H318 | : | Causes serious eye damage. |

**Full text of other abbreviations**

| | | |
|---|---|---|
| Acute Tox. | : | Acute toxicity |
| Eye Dam. | : | Serious eye damage |
| Met. Corr. | : | Corrosive to metals |
| Skin Corr. | : | Skin corrosion |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No

Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

| **Classification of the mixture:** | | **Classification procedure:** |
|---|---|---|
| Met. Corr. 1 | H290 | Calculation method |
| Skin Corr. 1 | H314 | Based on product data or assessment |
| Eye Dam. 1 | H318 | Based on product data or assessment |

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

REG_EU / EN