# Safety Data Sheet

acc. to GOST 30333-2007

# ReduClean

Version number: 1.0 Date of compilation: 2026-07-07

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

### 1.1 Product identifier

Trade name **ReduClean**

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

Relevant identified uses: Cleaning agent to remove ReduSystems shading agents from horticultural greenhouses.
Industrial use

Uses advised against: Do not use for products which come into direct contact with the skin
Do not use for private purposes (household)

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

Lumiforte EMEA B.V.
Geerstraat 8
5111 PS Baarle-Nassau
Netherlands

Telephone: +31 (0)1 35 07 53 99
e-mail: safety@lumiforte.com
Website: www.lumiforte.com

### 1.4 Emergency telephone number

Emergency information service: +31 (0)1 35 07 53 99
This number is only available during the following office hours: Mon-Fri 09:00 - 17:00, CET: Central European Time

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification acc. to GHS

| Section | Hazard class | Category | Hazard class and category | Hazard statement |
|---|---|---|---|---|
| 2.16 | substance or mixture corrosive to metals | 1 | Met. Corr. 1 | H290 |
| 3.2 | skin corrosion/irritation | 1 | Skin Corr. 1 | H314 |
| 3.3 | serious eye damage/eye irritation | 1 | Eye Dam. 1 | H318 |

For full text of H-phrases: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.

### 2.2 Label elements

Labelling

- signal word: Danger
- pictograms

GHS05



- hazard statements

| | |
|---|---|
| H290 | May be corrosive to metals. |
| H314 | Causes severe skin burns and eye damage. |

- precautionary statements

| | |
|---|---|
| P234 | Keep only in original container. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| 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/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. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |

- hazardous ingredients for labelling

Contains: sodium hydroxide; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

## 2.3 Other hazards

### Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.

### Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

# SECTION 3: Composition/information on ingredients

## 3.1 Substances

Not relevant (mixture).

## 3.2 Mixtures

The product does not contain (other) ingredients which are classified according to present knowledge of the supplier and contribute to the classification of the product and hence require reporting in this section.

| Name of substance | Identifier | Wt% | Classification acc. to GHS | Pictograms | Notes | Specific Conc. Limits |
|---|---|---|---|---|---|---|
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | CAS No 51981-21-6 | 5 – < 10 | Met. Corr. 1 / H290<br>Acute Tox. 5 / H303<br>Acute Tox. 5 / H313 |  | | |
| sodium hydroxide | CAS No 1310-73-2 | 1 – < 2,5 | Met. Corr. 1 / H290<br>Skin Corr. 1 / H314<br>Eye Dam. 1 / H318<br>Aquatic Acute 3 / H402 |  | | |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | CAS No 85536-14-7 | 1 – < 2,5 | Acute Tox. 4 / H302<br>Acute Tox. 5 / H313<br>Skin Corr. 1C / H314<br>Eye Dam. 1 / H318<br>Aquatic Acute 2 / H401<br>Aquatic Chronic 3 / H412 |  | | |
| Sodium p-cumenesulphonate | CAS No 15763-76-5 | 1 – < 2,5 | Acute Tox. 5 / H313<br>Eye Irrit. 2 / H319 |  | | |

## Remarks

All the percentages given are percentages by weight unless stated otherwise. For full text of H-phrases: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General notes

Do not leave affected person unattended. Remove victim out of the danger area. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Do not take off clothes. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following inhalation

Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Immediately call a POISON CENTER/doctor. In case of respiratory tract irritation, consult a physician.

#### Following skin contact

Rinse immediately contaminated clothing and skin with plenty of water before removing clothes, if possible. Immediately call a POISON CENTER/doctor.

#### Following eye contact

Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

#### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Redness. Pain. Causes severe skin burns and eye damage.

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

For specialist advice physicians should contact the poison centre.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water spray; Foam; Dry extinguishing powder; Carbon dioxide (CO2); Sand;
Co-ordinate firefighting measures to the fire surroundings.

#### Unsuitable extinguishing media

Water jet.

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

Substance or mixture corrosive to metals.

#### Hazardous combustion products

During fire hazardous fumes/smoke could be produced. Carbon monoxide (CO). Carbon dioxide (CO2). Sulphur dioxide (SO2).

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

#### Special protective equipment for firefighters

Self-contained breathing apparatus (SCBA). Standard protective clothing for firefighters.

## SECTION 6: Accidental release measures

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

#### For non-emergency personnel

Follow emergency procedures such as the need to evacuate the danger area or to consult an expert. Wearing of suitable pro-

tective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Remove persons to safety. Ventilate affected area.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases. Use personal protective equipment as required.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

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

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid binder, universal binder, sawdust).

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Recommendations

- measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

- handling of incompatible substances or mixtures

Do not mix with acids.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

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

Managing of associated risks

- corrosive conditions

Store in corrosive resistant container with a resistant inner liner.

- flammability hazards

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

- incompatible substances or mixtures

Keep away from: oxidising substances, acids, strong bases, strong acids, metals.

Control of effects

Protect against external exposure, such as

High temperatures. UV-radiation/sunlight. Frost.

Consideration of other advice

Store in a well-ventilated place. Keep container tightly closed.

- packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used. Stainless steel. Polyethylene.

- packaging incompatibilities

Tin, lead, copper, aluminium, magnesium, zinc,

## 7.3 Specific end use(s)

See section 1.2.

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

### National limit values

No information available.

**Relevant DNELs/DMELs/PNECs and other threshold levels**

Relevant DNELs of components of the mixture

| Name of substance | CAS No | End-point | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
|---|---|---|---|---|---|---|
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | DNEL | 7,3 mg/m³ | human, inhalatory | worker (industry) | chronic - systemic effects |
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | DNEL | 15.000 mg/kg bw/day | human, dermal | worker (industry) | chronic - systemic effects |
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | DNEL | 1,8 mg/m³ | human, inhalatory | consumer (private households) | chronic - systemic effects |
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | DNEL | 7.500 mg/kg bw/day | human, dermal | consumer (private households) | chronic - systemic effects |
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | DNEL | 1,5 mg/kg bw/day | human, oral | consumer (private households) | chronic - systemic effects |
| sodium hydroxide | 1310-73-2 | DNEL | 1 mg/m³ | human, inhalatory | worker (industry) | chronic - local effects |
| sodium hydroxide | 1310-73-2 | DNEL | 1 mg/m³ | human, inhalatory | consumer (private households) | chronic - local effects |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | DNEL | 7,6 mg/m³ | human, inhalatory | worker (industry) | chronic - systemic effects |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | DNEL | 119 mg/kg bw/day | human, dermal | worker (industry) | chronic - systemic effects |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | DNEL | 1,3 mg/m³ | human, inhalatory | consumer (private households) | chronic - systemic effects |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | DNEL | 42,5 mg/kg bw/day | human, dermal | consumer (private households) | chronic - systemic effects |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | DNEL | 0,425 mg/kg bw/day | human, oral | consumer (private households) | chronic - systemic effects |
| Sodium p-cumenesulphonate | 15763-76-5 | DNEL | 37,4 mg/m³ | human, inhalatory | worker (industry) | chronic - systemic effects |
| Sodium p-cumenesulphonate | 15763-76-5 | DNEL | 191 mg/kg bw/day | human, dermal | worker (industry) | chronic - systemic effects |
| Sodium p-cumenes- | 15763-76-5 | DNEL | 6,6 mg/m³ | human, inhalatory | consumer (private | chronic - systemic |

| Relevant DNELs of components of the mixture | | | | | | |
|---|---|---|---|---|---|---|
| **Name of substance** | **CAS No** | **End-point** | **Threshold level** | **Protection goal, route of exposure** | **Used in** | **Exposure time** |
| ulphonate | | | | | households) | effects |
| Sodium p-cumenesulphonate | 15763-76-5 | DNEL | 68,1 mg/kg bw/day | human, dermal | consumer (private households) | chronic - systemic effects |
| Sodium p-cumenesulphonate | 15763-76-5 | DNEL | 3,8 mg/kg bw/day | human, oral | consumer (private households) | chronic - systemic effects |

| Relevant PNECs of components | | | | | | |
|---|---|---|---|---|---|---|
| **Name of substance** | **CAS No** | **End-point** | **Threshold level** | **Organism** | **Environmental compartment** | **Exposure time** |
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | PNEC | 9,45 mg/l | aquatic organisms | freshwater | short-term (single instance) |
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | PNEC | 0,945 mg/l | aquatic organisms | marine water | short-term (single instance) |
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | PNEC | 41,2 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | PNEC | 4,12 mg/kg | aquatic organisms | freshwater sediment | short-term (single instance) |
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | PNEC | 0,412 mg/kg | aquatic organisms | marine sediment | short-term (single instance) |
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | PNEC | 0,5 mg/kg | terrestrial organisms | soil | short-term (single instance) |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | PNEC | 0,268 mg/l | aquatic organisms | freshwater | short-term (single instance) |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | PNEC | 0,027 mg/l | aquatic organisms | marine water | short-term (single instance) |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | PNEC | 3,43 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | PNEC | 8,1 mg/kg | aquatic organisms | freshwater sediment | short-term (single instance) |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | PNEC | 6,8 mg/kg | aquatic organisms | marine sediment | short-term (single instance) |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | PNEC | 35 mg/kg | terrestrial organisms | soil | short-term (single instance) |
| Sodium p-cumenesulphonate | 15763-76-5 | PNEC | 0,1 mg/l | aquatic organisms | freshwater | short-term (single instance) |
| Sodium p-cumenesulphonate | 15763-76-5 | PNEC | 0,01 mg/l | aquatic organisms | marine water | short-term (single instance) |
| Sodium p-cumenes- | 15763-76-5 | PNEC | 100 mg/l | aquatic organisms | sewage treatment | short-term (single |

| Relevant PNECs of components | | | | | | |
|---|---|---|---|---|---|---|
| **Name of sub-stance** | **CAS No** | **End-point** | **Threshold level** | **Organism** | **Environmental compartment** | **Exposure time** |
| ulphonate | | | | | plant (STP) | instance) |
| Sodium p-cumenes-ulphonate | 15763-76-5 | PNEC | 0,372 $^{mg}/_{kg}$ | aquatic organisms | freshwater sediment | short-term (single instance) |
| Sodium p-cumenes-ulphonate | 15763-76-5 | PNEC | 0,037 $^{mg}/_{kg}$ | aquatic organisms | marine sediment | short-term (single instance) |
| Sodium p-cumenes-ulphonate | 15763-76-5 | PNEC | 0,016 $^{mg}/_{kg}$ | terrestrial organ-isms | soil | short-term (single instance) |

## 8.2 Exposure controls

### Appropriate engineering controls

General ventilation. Provide eyewash stations and safety showers at the workplace.

### Individual protection measures (personal protective equipment)

### Eye/face protection



Use safety goggle with side protection Wear face-shield.

### Skin protection



Chemical protective clothing.

### Hand protection



Wear suitable gloves. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- type of material

PVC: polyvinyl chloride, NR: natural rubber, latex, Nitrile rubber, Butyl rubber

- material thickness

Use gloves with a minimum material thickness:
PVC: polyvinyl chloride, NR: natural rubber, latex, Butyl rubber: ≥ 0,5 mm.
Nitrile rubber: > 0,35mm.

- breakthrough time of the glove material

Use gloves with a minimum breakthrough time of the glove material: >480 minutes (permeation: level 6).

- other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection. Type: ABEK-P2 (combined filters against gases, vapours and particles, colour code: Brown/Grey/Yellow/Green/White).

### Environmental exposure controls

Take appropriate precautions to avoid uncontrolled release into the environment. Keep away from drains, surface and ground water.

# SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

## Appearance

| | |
|---|---|
| Physical state | liquid |
| Colour | colourless |

| | |
|---|---|
| Particle | not relevant (liquid) |

| | |
|---|---|
| Odour | characteristic |

## Other safety parameters

| | |
|---|---|
| pH (value) | 13 (base) |
| Melting point/freezing point | not determined |
| Initial boiling point and boiling range | 100 °C<br>calculated value, referring to a component of the mixture |
| Flash point | no data available |
| Evaporation rate | not determined |
| Flammability (solid, gas) | not relevant, (fluid) |
| Explosive limits | LEL: UEL: not determined |
| Vapour pressure | 2,3 kPa at 20 °C<br>calculated value, referring to a component of the mixture |
| Density | 1,1 $^{g}/_{cm^3}$ |
| Relative density | information on this property is not available |
| Solubility | not determined |

| | |
|---|---|
| - n-octanol/water (log KOW) | this information is not available |
| Auto-ignition temperature | 380 °C (auto-ignition temperature (liquids and gases))<br>calculated value, referring to a component of the mixture |
| Decomposition temperature | no data available |

Viscosity

| | |
|---|---|
| - kinematic viscosity | 1.455 $^{mm^2}/_{s}$ at 20 °C |
| - dynamic viscosity | 1.600 mPa s at 20 °C (Brookfield LV Sp.3, 5rpm) |
| Explosive properties | none |
| Oxidising properties | none |

## 9.2 Other information

There is no additional information.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Substance or mixture corrosive to metals. Reacts with: acids, Ammonium salts, halogenated hydrocarbons.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

Ammonium salts. Reacts with most metals in the presence of moisture, releasing hydrogen, a highly flammable gas.

### 10.4 Conditions to avoid

UV-radiation/sunlight. Extremely high or low temperatures.

### 10.5 Incompatible materials

Oxidisers. Strong acids. Strong bases. Metals.

Release of flammable materials with:

Light metals (due to the release of hydrogen in an acid/alkaline medium)

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification acc. to GHS

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components

| Name of substance | CAS No | Exposure route | ATE |
|---|---|---|---|
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | oral | >2.000 $^{mg}/_{kg}$ |
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | dermal | >2.000 $^{mg}/_{kg}$ |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | oral | 1.470 $^{mg}/_{kg}$ |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | dermal | >2.000 $^{mg}/_{kg}$ |
| Sodium p-cumenesulphonate | 15763-76-5 | dermal | >2.000 $^{mg}/_{kg}$ |

Acute toxicity of components

| Name of substance | CAS No | Exposure route | Endpoint | Value | Species |
|---|---|---|---|---|---|
| Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate | 51981-21-6 | oral | LD50 | >2.000 $^{mg}/_{kg}$ | rat |

| Acute toxicity of components | | | | | |
|---|---|---|---|---|---|
| **Name of substance** | **CAS No** | **Exposure route** | **Endpoint** | **Value** | **Species** |
| Tetrasodium N,N-bis(carboxylato-methyl)-L-glutamate | 51981-21-6 | dermal | LD50 | >2.000 $^{mg}/_{kg}$ | rat |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | oral | LD50 | 1.470 $^{mg}/_{kg}$ | rat |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | dermal | LD50 | >2.000 $^{mg}/_{kg}$ | rat |
| Sodium p-cumenesulphonate | 15763-76-5 | oral | LD50 | >6.720 $^{mg}/_{kg}$ | rat |
| Sodium p-cumenesulphonate | 15763-76-5 | dermal | LD50 | >2.000 $^{mg}/_{kg}$ | rabbit |

### Skin corrosion/irritation

Causes severe skin burns and eye damage.

### Serious eye damage/eye irritation

Causes serious eye damage.

### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

### Other information

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

## 11.2 Information on other hazards

### Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

# SECTION 12: Ecological information

## 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

| Aquatic toxicity (acute) of components of the mixture | | | | | |
|---|---|---|---|---|---|
| **Name of substance** | **CAS No** | **Endpoint** | **Value** | **Species** | **Exposure time** |
| Tetrasodium N,N-bis(carboxylato-methyl)-L-glutamate | 51981-21-6 | LC50 | >100 $^{mg}/_{l}$ | rainbow trout (Onco-rhynchus mykiss) | 96 h |
| Tetrasodium N,N-bis(carboxylato- | 51981-21-6 | EC50 | >100 $^{mg}/_{l}$ | daphnia magna | 48 h |

| Aquatic toxicity (acute) of components of the mixture | | | | | |
|---|---|---|---|---|---|
| **Name of substance** | **CAS No** | **Endpoint** | **Value** | **Species** | **Exposure time** |
| methyl)-L-glutamate | | | | | |
| Tetrasodium N,N-bis(carboxylato-methyl)-L-glutamate | 51981-21-6 | NOEC | ≥100 mg/l | green algae (Desmod-esmus subspicatus) | 72 h |
| sodium hydroxide | 1310-73-2 | LC50 | <180 mg/l | fish | 96 h |
| sodium hydroxide | 1310-73-2 | EC50 | 40,4 mg/l | water flea (Daphnia) | 48 h |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | LC50 | 2,88 mg/l | fathead minnow (Pimephales promelas) | 96 h |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | EC50 | 2,9 mg/l | daphnia magna | 48 h |
| Sodium p-cumenesulphonate | 15763-76-5 | ErC50 | 252 mg/l | algae | 72 h |
| Sodium p-cumenesulphonate | 15763-76-5 | LC50 | ≥252 mg/l | zebra fish (Danio rerio) | 96 h |
| Sodium p-cumenesulphonate | 15763-76-5 | EC50 | >304 mg/l | daphnia magna | 48 h |
| Sodium p-cumenesulphonate | 15763-76-5 | NOEC | 31 mg/l | algae | 96 h |

| Aquatic toxicity (chronic) of components of the mixture | | | | | |
|---|---|---|---|---|---|
| **Name of substance** | **CAS No** | **Endpoint** | **Value** | **Species** | **Exposure time** |
| Tetrasodium N,N-bis(carboxylato-methyl)-L-glutamate | 51981-21-6 | EC50 | 380,1 mg/l | aquatic invertebrates | 21 d |
| Tetrasodium N,N-bis(carboxylato-methyl)-L-glutamate | 51981-21-6 | NOEC | 103 mg/l | zebra fish (Danio rerio) | 9 d |
| Tetrasodium N,N-bis(carboxylato-methyl)-L-glutamate | 51981-21-6 | LOEC | 227 mg/l | zebra fish (Danio rerio) | 9 d |
| Tetrasodium N,N-bis(carboxylato-methyl)-L-glutamate | 51981-21-6 | growth (EbCx) 10% | 125 mg/l | zebra fish (Danio rerio) | 9 d |
| sodium hydroxide | 1310-73-2 | EC50 | 22 mg/l | microorganisms | 15 min |
| sodium hydroxide | 1310-73-2 | growth (EbCx) 10% | 161 mg/l | microorganisms | 2 min |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | EC50 | 1,5 mg/l | daphnia magna | 21 d |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | LC50 | 1,67 mg/l | daphnia magna | 21 d |
| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. | 85536-14-7 | NOEC | 0,23 mg/l | rainbow trout (Onco-rhynchus mykiss) | 72 d |
| Sodium p-cumenesulphonate | 15763-76-5 | growth (EbCx) 10% | ≥1.000 mg/l | microorganisms | 3 h |

## 12.2 Persistence and degradability

Data are not available.

## 12.3 Bioaccumulative potential

Data are not available.

## 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

### Relevant provisions relating to waste (Basel Convention)

Properties of waste which render it hazardous

H8 Corrosives

### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## SECTION 14: Transport information

### 14.1 UN number

| | |
|---|---|
| ADR | UN 1760 |
| IMDG-Code | UN 1760 |
| ICAO-TI | UN 1760 |

### 14.2 UN proper shipping name

| | |
|---|---|
| ADR | CORROSIVE LIQUID, N.O.S. |
| IMDG-Code | CORROSIVE LIQUID, N.O.S. |
| ICAO-TI | Corrosive liquid, n.o.s. |
| Technical name (Hazardous ingredients) | Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate, sodium hydroxide |

### 14.3 Transport hazard class(es)

| | |
|---|---|
| ADR | 8 |
| IMDG-Code | 8 |
| ICAO-TI | 8 |

### 14.4 Packing group

| | |
|---|---|
| ADR | III |
| IMDG-Code | III |

| | |
|---|---|
| ICAO-TI | III |

## 14.5 Environmental hazards

Non-environmentally hazardous acc. to the dangerous goods regulations.

## 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

## 14.7 Transport in bulk according to IMO instruments

No data available.

## Additional information for each of the UN Model Regulations

### Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) - additional information

| | |
|---|---|
| Classification code | C9 |
| Danger label(s) | 8 |



| | |
|---|---|
| Special provisions (SP) | 274 |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 5 L |
| Transport category (TC) | 3 |
| Tunnel restriction code (TRC) | E |
| Hazard identification No | 80 |

### International Maritime Dangerous Goods Code (IMDG) - additional information

| | |
|---|---|
| Marine pollutant | - |
| Danger label(s) | 8 |



| | |
|---|---|
| Special provisions (SP) | 223, 274 |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 5 L |
| EmS | F-A, S-B |
| Stowage category | A |

### International Civil Aviation Organization (ICAO-IATA/DGR) - additional information

| | |
|---|---|
| Danger label(s) | 8 |



| | |
|---|---|
| Special provisions (SP) | A3 |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 1 L |

## SECTION 15: Regulatory information

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

There is no additional information.

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations |
|---|---|
| Acute Tox. | Acute toxicity |
| ADR | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road) |
| Aquatic Acute | Hazardous to the aquatic environment - acute hazard |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard |
| ATE | Acute Toxicity Estimate |
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| DMEL | Derived Minimal Effect Level |
| DNEL | Derived No-Effect Level |
| EC50 | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval |
| ED | Endocrine disruptor |
| EmS | Emergency Schedule |
| ErC50 | ≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control |
| Eye Dam. | Seriously damaging to the eye |
| Eye Irrit. | Irritant to the eye |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| GOST 30333-2007 | Chemical production safety passport. General requirements |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| ICAO-TI | Technical instructions for the safe transport of dangerous goods by air |
| IMDG | International Maritime Dangerous Goods Code |
| IMDG-Code | International Maritime Dangerous Goods Code |
| LC50 | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval |
| LD50 | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval |
| LEL | Lower explosion limit (LEL) |

| Abbr. | Descriptions of used abbreviations |
|---|---|
| LOEC | Lowest Observed Effect Concentration |
| Met. Corr. | Substance or mixture corrosive to metals |
| NOEC | No Observed Effect Concentration |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| Skin Corr. | Corrosive to skin |
| Skin Irrit. | Irritant to skin |
| UEL | Upper explosion limit (UEL) |
| vPvB | Very Persistent and very Bioaccumulative |

## Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

## Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

## List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text |
|---|---|
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed. |
| H303 | May be harmful if swallowed. |
| H313 | May be harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H401 | Toxic to aquatic life. |
| H402 | Harmful to aquatic life. |
| H412 | Harmful to aquatic life with long lasting effects. |

## Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.