

# SAFETY DATA SHEET according to regulation 1907/2006



**Product name: 8015 Tornado**

**Creation date: 26.05.2021, Revision: 27.05.2021, version: 1.1**

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

Product name  
8015 Tornado



<https://my.chemius.net/p/vv0uux/en/pd/en>

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

Relevant identified uses  
Cleaning agent.

Uses advised against  
No information.

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

Supplier  
SILCO, D.O.O.  
Šentrupert 5 a  
3303 Gomilsko, Slovenia  
+386 3 703 3180  
n.cvilak@silco-automotive.com

### 1.4 Emergency Telephone Number

Emergency  
112

Supplier  
+386 3 703 3180

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)  
Met. Corr. 1; H290 May be corrosive to metals.  
Skin Corr. 1A; H314.1A Causes severe skin burns and eye damage.  
Eye Dam. 1; H318 Causes serious eye damage.

### 2.2 Label elements

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



**Signal word: Danger**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

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

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 or doctor/physician.

**Contains:**

sodium hydroxide

tetrasodium ethylene diamine tetraacetate

(1-Hydroxyethylidene)bisphosphonic acid

Sodium lauryl ether sulfate

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

**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.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

For mixtures see 3.2.

**3.2 Mixtures**

NAME	CAS EC INDEX REACH	%	CLASSIFICATION ACCORDING TO REGULATION (EC) NO 1272/2008 (CLP)	SPECIFIC CONC. LIMITS	NOTES FOR SUBSTANCES
sodium hydroxide	1310-73-2 215-185-5 011-002-00-6 01- 2119457892- 27	$9 \leq x < 11$	Met. Corr. 1; H290 Skin Corr. 1A; H314.1A Eye Dam. 1; H318	Skin Corr. 1A; H314.1A; $C \geq 5\%$ Skin Corr. 1B; H314.1B; $2\% \leq C < 5\%$ Skin Irrit. 2; H315; $0.5\% \leq C < 2\%$ Eye Irrit. 2; H319; $0.5\% \leq C < 2\%$	/
tetrasodium ethylene diamine tetraacetate	64-02-8 200-573-9 607-428-00-2 01- 2119486762- 27	$7 \leq x < 9$	Acute Tox. 4; H302 Eye Dam. 1; H318 Acute Tox. 4; H332 STOT RE 2; H373	/	/
(1-Hydroxyethylidene)bisphosphonic acid	2809-21-4 220-552-8 - 01- 2119510391- 53	$5 \leq x < 7$	Met. Corr. 1; H290 Acute Tox. 4; H302 Eye Dam. 1; H318	/	/
Sodium lauryl ether sulfate	9004-82-4 - -	$3 \leq x < 4$	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412	/	/

Sodium p-cumenesulphonate	15763-76-5 239-854-6 - 01- 2119489411- 37	$3 \leq x$ < 4	Eye Irrit. 2; H319	/	/
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	85536-14-7 287-494-3 - 01- 2119490234- 40	$3 \leq x$ < 4	Acute Tox. 4; H302 Skin Corr. 1C; H314.1C Eye Dam. 1; H318 Aquatic Chronic 3; H412	/	/
2-butoxyethanol	111-76-2 203-905-0 603-014-00-0 01- 2119475108- 36	$2 \leq x$ < 3	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332	/	/
sulphuric acid	7664-93-9 231-639-5 016-020-00-8 01- 2119458838- 20	$0,05$ $\leq x <$ $0,07$	Skin Corr. 1A; H314.1A	Skin Corr. 1A; H314.1A; C $\geq$ 15% Skin Irrit. 2; H315; 5% $\leq$ C < 15% Eye Irrit. 2; H319; 5% $\leq$ C < 15%	/

## SECTION 4: FIRST AID MEASURES

### 4.1 First aid measures

#### General notes

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. Person giving first aid should properly protect himself.

#### Following inhalation

Remove patient to fresh air - move out of dangerous area. Keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Seek medical help immediately.

#### Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. Immediately obtain professional medical help!

#### Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician immediately!

#### Following ingestion

Drink plenty of water in small sips. Do not induce vomiting without prior consultation with a doctor. Never give anything by mouth to an unconscious person. Immediately consult a doctor. Show the physician the safety data sheet or label.

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

#### Following inhalation

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation.

#### Following skin contact

Skin burns: Signs/symptoms may include localised redness, swelling, itching, dryness, blistering.

**Following eye contact**

Causes burns: signs/symptoms include corneal damage, burns, pain, lacrimation, corrosive effects, partial or complete loss of sight.

**Following ingestion**

May cause nausea/vomiting and diarrhea. May cause abdominal discomfort.

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

Treat symptomatically.

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media****Suitable extinguishing media**

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

**Unsuitable extinguishing media**

Full water jet.

**5.2 Special hazards arising from the substance or mixture****Hazardous combustion products**

In case of a fire toxic gases can be generated; do not inhale gases/smoke.

**5.3 Advice for firefighters****Protective actions**

In case of fire evacuate the area. In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Cool the endangered containers with water spray.

**Special protective equipment for fire-fighters**

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

**Additional information**

Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel****Protective equipment**

Use personal protective equipment (Section 8).

**Precautionary measures**

Ensure adequate ventilation.

**Emergency procedures**

No action shall be taken involving any personal risk or without suitable training. Evacuate the danger zone. Prevent access to unprotected personnel. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

**For emergency responders**

Use personal protective equipment.

**6.2 Environmental precautions**

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental large entry into water or

ground occurs, inform responsible authorities.

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

#### For containment

Stem the spill if this does not pose risks.

#### For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Make sure the leakage site is well aired. Dispose in accordance with applicable regulations (see Section 13).

#### OTHER INFORMATION

No information.

### 6.4 Reference to other sections

See also sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

#### Protective measures

##### Measures to prevent fire

Ensure adequate ventilation. Ensure proper grounding of the equipment.

##### Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

##### Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

#### Other measures

No information.

#### Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Avoid contact with skin, eyes and clothes. Wear suitable protective equipment; see Section 8. Remove contaminated clothes and wash them before reuse. Before entering areas where food is eaten, remove contaminated clothing and protective equipment. Refer to instructions on label and regulations for safety and health at work.

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

#### Technical measures and storage conditions

Store in accordance with local regulations. Keep in well closed containers. Keep in a cool, dry and well ventilated place. Keep away from incompatible products (see section 10). Keep away from food, drink and animal feeding stuffs. Keep away from heat and sources of ignition.

#### Packaging materials

Store only in original container.

#### Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers.

#### Storage class

No information.

#### Further information on storage conditions

No information.

### 7.3 Specific end use(s)

#### Recommendations

No information.

Industrial sector specific solutions  
No information.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational Exposure limit values

NAME	MG/M <sup>3</sup>	ML/M <sup>3</sup>	SHORT-TERM VALUE MG/M <sup>3</sup>	SHORT-TERM VALUE ML/M <sup>3</sup>	REMARK	BIOLOGICAL TOLERANCE VALUES
2-Butoxyethanol (111-76-2)	123	25	246	50	Sk, BMGV	240 mmol butoxyacetic acid/mol creatinine in urine - Post shift
Sodium hydroxide (1310-73-2)	/	/	2	/	/	/
Sulphuric acid (mist) (7664-93-9)	0.05	/	/	/	The mist is defined as the thoracic fraction	/

#### Information on monitoring procedures

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 482:2012+A1:2015 Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents.

#### DNEL/DMEL values

##### For product

No information.

##### For components

NAME	TYPE	EXPOSURE ROUTE	EXP. FREQUENCY	REMARK	VALUE
sodium hydroxide	Worker	inhalation	long term local effects	/	1 mg/m <sup>3</sup>
sodium hydroxide	Consumer	inhalation	long term local effects	/	1 mg/m <sup>3</sup>
tetrasodium ethylene diamine tetraacetate	Worker	inhalation	long term local effects	/	1.5 mg/m <sup>3</sup>
tetrasodium ethylene diamine tetraacetate	Worker	inhalation	short term local effects	/	3 mg/m <sup>3</sup>
tetrasodium ethylene diamine tetraacetate	Consumer	inhalation	long term local effects	/	0.6 mg/m <sup>3</sup>
tetrasodium ethylene diamine tetraacetate	Consumer	inhalation	short term local effects	/	1.2 mg/m <sup>3</sup>
tetrasodium ethylene diamine tetraacetate	Consumer	oral	long term systemic effects	/	25 mg/kg bw/day
(1-Hydroxyethylidene)bisphosphonic acid	Worker	inhalation	long term systemic effects	/	12 mg/m <sup>3</sup>
(1-Hydroxyethylidene)bisphosphonic acid	Worker	dermal	long term systemic effects	/	34 mg/kg bw/day
(1-Hydroxyethylidene)bisphosphonic acid	Consumer	inhalation	long term systemic effects	/	2.95 mg/m <sup>3</sup>
(1-Hydroxyethylidene)bisphosphonic acid	Consumer	dermal	long term systemic effects	/	17 mg/kg bw/day
(1-Hydroxyethylidene)bisphosphonic acid	Consumer	oral	long term systemic effects	/	1.7 mg/kg bw/day

(1-Hydroxyethylidene)bisphosphonic acid	Consumer	oral	short term systemic effects	/	1.7 mg/kg bw/day
Sodium p-cumenesulphonate	Worker	inhalation	long term systemic effects	/	26.9 mg/m <sup>3</sup>
Sodium p-cumenesulphonate	Worker	dermal	long term systemic effects	/	136.25 mg/kg bw/day
Sodium p-cumenesulphonate	Worker	dermal	long term local effects	/	0.096 mg/cm <sup>2</sup>
Sodium p-cumenesulphonate	Consumer	inhalation	long term systemic effects	/	6.6 mg/m <sup>3</sup>
Sodium p-cumenesulphonate	Consumer	dermal	long term systemic effects	/	68.1 mg/kg bw/day
Sodium p-cumenesulphonate	Consumer	dermal	long term local effects	/	0.048 mg/cm <sup>2</sup>
Sodium p-cumenesulphonate	Consumer	oral	long term systemic effects	/	3.8 mg/kg bw/day
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	Worker	inhalation	long term systemic effects	/	6 mg/m <sup>3</sup>
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	Worker	dermal	long term systemic effects	/	85 mg/kg bw/day
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	Consumer	inhalation	long term systemic effects	/	1.5 mg/m <sup>3</sup>
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	Consumer	dermal	long term systemic effects	/	42.5 mg/kg bw/day
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	Consumer	oral	long term systemic effects	/	0.425 mg/kg bw/day
2-butoxyethanol	Worker	inhalation	long term systemic effects	/	98 mg/m <sup>3</sup>
2-butoxyethanol	Worker	inhalation	short term systemic effects	/	1091 mg/m <sup>3</sup>
2-butoxyethanol	Worker	inhalation	short term local effects	/	246 mg/m <sup>3</sup>
2-butoxyethanol	Worker	dermal	long term systemic effects	/	125 mg/kg bw/day
2-butoxyethanol	Worker	dermal	short term systemic effects	/	89 mg/kg bw/day
2-butoxyethanol	Consumer	inhalation	long term systemic effects	/	59 mg/m <sup>3</sup>
2-butoxyethanol	Consumer	inhalation	short term systemic effects	/	426 mg/m <sup>3</sup>
2-butoxyethanol	Consumer	inhalation	short term local effects	/	147 mg/m <sup>3</sup>
2-butoxyethanol	Consumer	dermal	long term systemic effects	/	75 mg/kg bw/day
2-butoxyethanol	Consumer	dermal	short term systemic effects	/	89 mg/kg bw/day

2-butoxyethanol	Consumer	oral	long term systemic effects	/	6.3 mg/kg bw/day
2-butoxyethanol	Consumer	oral	short term systemic effects	/	26.7 mg/kg bw/day
sulphuric acid	Worker	inhalation	long term local effects	/	0.05 mg/m <sup>3</sup>
sulphuric acid	Worker	inhalation	short term local effects	/	0.1 mg/m <sup>3</sup>

#### PNEC values

##### For product

No information.

##### For components

NAME	EXPOSURE ROUTE	REMARK	VALUE
tetrasodium ethylene diamine tetraacetate	fresh water	/	2.2 mg/L
tetrasodium ethylene diamine tetraacetate	water, intermittent release	/	1.2 mg/L
tetrasodium ethylene diamine tetraacetate	marine water	/	0.22 mg/L
tetrasodium ethylene diamine tetraacetate	water treatment plant	/	43 mg/L
tetrasodium ethylene diamine tetraacetate	soil	dry weight	0.72 mg/kg
(1-Hydroxyethylidene)bisphosphonic acid	fresh water	/	0.068 mg/L
(1-Hydroxyethylidene)bisphosphonic acid	marine water	/	0.007 mg/L
(1-Hydroxyethylidene)bisphosphonic acid	water treatment plant	/	40 mg/L
(1-Hydroxyethylidene)bisphosphonic acid	fresh water sediment	dry weight	136 mg/kg
(1-Hydroxyethylidene)bisphosphonic acid	marine water sediment	dry weight	13.6 mg/kg
(1-Hydroxyethylidene)bisphosphonic acid	soil	dry weight	10 mg/kg
(1-Hydroxyethylidene)bisphosphonic acid	secondary poisoning	food	3.7 mg/kg
Sodium p-cumenesulphonate	fresh water	/	0.23 mg/L
Sodium p-cumenesulphonate	water, intermittent release	/	2.3 mg/L
Sodium p-cumenesulphonate	marine water	/	0.023 mg/L
Sodium p-cumenesulphonate	water treatment plant	/	100 mg/L
Sodium p-cumenesulphonate	fresh water sediment	dry weight	0.862 mg/kg
Sodium p-cumenesulphonate	marine water sediment	dry weight	0.086 mg/kg
Sodium p-cumenesulphonate	soil	dry weight	0.037 mg/kg
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	fresh water	/	0.268 mg/L
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	water, intermittent release	/	0.017 mg/L
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	marine water	/	0.027 mg/L



Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	water treatment plant	/	3.43 mg/L
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	fresh water sediment	dry weight	8.1 mg/kg
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	marine water sediment	dry weight	6.8 mg/kg
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	soil	dry weight	35 mg/kg
2-butoxyethanol	fresh water	/	8.8 mg/L
2-butoxyethanol	water, intermittent release	/	26.4 mg/L
2-butoxyethanol	marine water	/	0.88 mg/L
2-butoxyethanol	water treatment plant	/	463 mg/L
2-butoxyethanol	fresh water sediment	dry weight	34.6 mg/kg
2-butoxyethanol	marine water sediment	dry weight	3.46 mg/kg
2-butoxyethanol	soil	dry weight	2.33 mg/kg
2-butoxyethanol	secondary poisoning	food	0.02 g/kg
sulphuric acid	fresh water	/	0.003 mg/L
sulphuric acid	marine water	/	0 mg/L
sulphuric acid	water treatment plant	/	8.8 mg/L
sulphuric acid	fresh water sediment	dry weight	0.002 mg/kg
sulphuric acid	marine water sediment	dry weight	0.002 mg/kg

## 8.2 Exposure controls

### Appropriate engineering control

#### Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

#### Structural measures to prevent exposure

No information.

#### Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. Keep eyewash bottles or personal eyewash units and emergency showers available.

#### Technical measures to prevent exposure

The use of adequate technical equipment must always take priority over personal protective equipment. Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

### Personal protective equipment

#### Eye and face protection

Wear tight fitting protective goggles and face protection (EN 166).

#### Hand protection

Protective gloves (EN 374). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. 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. The penetration time is determined by the protective glove manufacturer and must

be observed.

#### Appropriate materials

#### Skin protection

Wear category III professional long-sleeved overalls and safety footwear (see Regulation (EU) 2016/425 and standard EN ISO 20344). Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345). Protective work clothing resistant to liquid chemicals (EN 14605). At high risk of skin exposure chemical suits (EN ISO 6530:2005) and boots may be required (EN ISO 20345:2012). Choose body protection according to the activity and possible exposure.

#### Respiratory protection

At elevated concentrations of vapours/aerosols in the air wear a mask (EN 140) with filter A2-P2 (EN 14387). 'High/elevated concentrations' means that the occupational exposure limit values have been exceeded. For dust/gas/vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard EN 137, EN 138.

#### Thermal hazards

No information.

#### Environmental exposure controls

##### Substance/mixture related measures to prevent exposure

No information.

##### Instruction measures to prevent exposure

No information.

##### Organisational measures to prevent exposure

No information.

##### Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Physical state

liquid

#### Colour

yellow

#### Odour

characteristic

#### Important health, safety and environmental information

Odour threshold	No information.
pH	13
Melting point/Freezing point	No information.
Initial boiling point/boiling range	No information.
Flash point	> 60 °C
Evaporation rate	No information.
Flammability (solid, gas)	No information.
Explosion limits (vol%)	No information.
Vapour pressure	No information.
Vapour density	No information.
Density / weight	Relative density: 1.18

Solubility	Water: Soluble
Partition coefficient	No information.
Auto-ignition temperature	No information.
Decomposition temperature	No information.
Viscosity	No information.
Explosive properties	Product is not explosive.
Oxidising properties	Not oxidising.

## 9.2 OTHER INFORMATION

Solids content	24.91 % (250 °C)
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## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

### 10.3 Possibility of hazardous reactions

The product is stable under recommended storage and handling conditions.

### 10.4 Conditions to avoid

No special precautions required. Consider the directions for use and storage.

### 10.5 Incompatible materials

Strong acids.

### 10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

(a) Acute toxicity  
For product

EXPOSURE ROUTE	TYPE	SPECIES	TIME	VALUE	METHOD	REMARK
inhalation	ATE	/	/	> 20 mg/l	/	/
oral	ATE	/	/	> 2000 mg/kg	/	/
dermal	ATE	/	/	> 2000 mg/kg	/	/

## For components

NAME	EXPOSURE ROUTE	TYPE	SPECIES	TIME	VALUE	METHOD	REMARK
sodium hydroxide	oral	LD <sub>50</sub>	rabbit	/	380 mg/kg	/	/
sodium hydroxide	dermal	LD <sub>50</sub>	rat	/	1350 mg/kg	/	/
tetrasodium ethylene diamine tetraacetate	oral	LD <sub>50</sub>	rat	/	1780 mg/kg	/	/
tetrasodium ethylene diamine tetraacetate	inhalation	LC <sub>50</sub>	rat	4 h	3 mg/l	/	/
(1-Hydroxyethylidene)bisphosphonic acid	oral	LD <sub>50</sub>	rat	/	3130 mg/kg	/	/
(1-Hydroxyethylidene)bisphosphonic acid	dermal	LD <sub>50</sub>	rabbit	/	> 5000 mg/kg	/	/
Sodium lauryl ether sulfate	oral	LD <sub>50</sub>	/	/	> 2000 mg/kg	/	/
Sodium p-cumenesulphonate	oral	LD <sub>50</sub>	rat	/	> 7000 mg/kg	/	/
Sodium p-cumenesulphonate	dermal	LD <sub>50</sub>	rabbit	/	> 2000 mg/kg	/	/
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	oral	LD <sub>50</sub>	/	/	2000 mg/kg	/	/
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	dermal	LD <sub>50</sub>	/	/	> 2000 mg/kg	/	/
2-butoxyethanol	oral	LD <sub>50</sub>	rat	/	1300 mg/kg	/	/
2-butoxyethanol	dermal	LD <sub>50</sub>	rabbit	/	> 2000 mg/kg	/	/
2-butoxyethanol	inhalation	LC <sub>50</sub>	rat	7 h	> 400 mg/l	/	/
sulphuric acid	oral	LD <sub>50</sub>	rat	/	2140 mg/kg	/	/
sulphuric acid	inhalation	LC <sub>50</sub>	rat	8 h	0.6 mg/l	/	/

## Additional information

The product is not classified for acute toxicity.

## (b) Skin corrosion/irritation

No information.

## Additional information

Causes severe burns and skin damage.

## (c) Serious eye damage/irritation

No information.

## Additional information

Causes serious eye damage.

## (d) Respiratory or skin sensitisation

No information.

## Additional information

The product is not classified as sensitising.

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

No information.

Additional information

STOT SE (single exposure): Not classified.

(i) STOT-repeated exposure

No information.

Additional information

STOT RE (repeated exposure): Not classified.

(j) Aspiration hazard

No information.

Additional information

Aspiration hazard: Not classified.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

Acute (short-term) toxicity

For components

NAME	TYPE	VALUE	EXPOSURE TIME	SPECIES	ORGANISM	METHOD	REMARK
sodium hydroxide	EC <sub>50</sub>	404 mg/L	72 h	algae	/	/	/
tetrasodium ethylene diamine tetraacetate	LC <sub>50</sub>	> 100	96 h	fish	/	/	/
tetrasodium ethylene diamine tetraacetate	EC <sub>50</sub>	> 100 mg/L	72 h	algae	/	/	/
(1-Hydroxyethylidene)bisphosphonic acid	LC <sub>50</sub>	195	96 h	fish	/	/	/
(1-Hydroxyethylidene)bisphosphonic acid	EC <sub>50</sub>	527 mg/L	48 h	crustacea	/	/	/
Sodium lauryl ether sulfate	LC <sub>50</sub>	> 1	96 h	fish	/	/	/
Sodium lauryl ether sulfate	EC <sub>50</sub>	7.2	48 h	crustacea	/	/	/
Sodium lauryl ether sulfate	EC <sub>50</sub>	7.5 mg/L	72 h	algae	/	/	/
Sodium p-cumenesulphonate	LC <sub>50</sub>	> 1000	96 h	fish	/	/	/
Sodium p-cumenesulphonate	EC <sub>50</sub>	> 1000	48 h	crustacea	/	/	/

Sodium p-cumenesulphonate	EC <sub>50</sub>	> 230 mg/L	72 h	algae	/	/	/
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	LC <sub>50</sub>	1.67	96 h	fish	/	/	/
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	EC <sub>50</sub>	29 mg/L	72 h	algae	/	/	/
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	EC <sub>10</sub>	1.69 mg/L	48 h	crab	/	/	/
2-butoxyethanol	LC <sub>50</sub>	1.474 mg/L	96 h	fish	<i>Lepomis macrochirus</i>	/	/
2-butoxyethanol	EC <sub>50</sub>	1.55	48 h	crustacea	<i>Daphnia magna</i>	/	/
2-butoxyethanol	EC <sub>50</sub>	1.84 mg/L	72 h	algae	/	/	/
sulphuric acid	LC <sub>50</sub>	> 16 mg/L	96 h	fish	<i>Lepomis macrochirus</i>	/	/
sulphuric acid	EC <sub>50</sub>	> 100 mg/L	72 h	algae	<i>Desmodesmus subspicatus</i>	/	/

#### Chronic (long-term) toxicity For components

NAME	TYPE	VALUE	EXPOSURE TIME	SPECIES	ORGANISM	METHOD	REMARK
Sodium lauryl ether sulfate	NOEC	1 mg/l	/	fish	/	/	/
Sodium lauryl ether sulfate	NOEC	0.18 mg/l	/	crustacea	/	/	/
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	NOEC	1 mg/l	/	fish	/	/	/
2-butoxyethanol	NOEC	> 100 mg/l	/	fish	/	/	/
2-butoxyethanol	NOEC	100 mg/l	/	crustacea	/	/	/

## 12.2 Persistence and degradability

### Abiotic degradation, physical- and photo-chemical elimination

No information.

### Biodegradation

#### For components

NAME	TYPE	RATE	TIME	EVALUATION	METHOD	REMARK
(1-Hydroxyethylidene)bisphosphonic acid	-	/	/	Not rapidly biodegradable.	/	/
Sodium lauryl ether sulfate	-	/	/	rapidly biodegradable	/	/
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	-	/	/	rapidly biodegradable	/	/
2-butoxyethanol	-	/	/	rapidly biodegradable	/	/

sulphuric acid	-	/	/	Not rapidly biodegradable.	/	/
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### 12.3 Bioaccumulative potential

#### Partition coefficient

##### For components

NAME	MEDIA	VALUE	TEMPERATURE	PH	CONCENTRATION	METHOD
2-butoxyethanol	Octanol-water (log Pow)	0.81	/	/	/	/

#### Bioconcentration factor (BCF)

##### For components

NAME	SPECIES	ORGANISM	VALUE	DURATION	EVALUATION	METHOD	REMARK
2-butoxyethanol	BCF	/	2.5	/	/	/	/

### 12.4 Mobility in soil

#### Known or predicted distribution to environmental compartments

No information.

#### Surface tension

No information.

#### Adsorption/Desorption

No information.

### 12.5 Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances in percentages greater than 0.1%.

### 12.6 Other adverse effects

No information.

### 12.7 Additional information

#### For product

Do not allow to reach ground water, water courses or sewage system.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product / Packaging disposal

##### Waste chemical

Dispose of in accordance with applicable waste disposal regulation. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Do not allow product to reach drains/sewage systems.

#### Waste codes / waste designations according to LoW

No information.

#### Packaging

Dispose of in accordance with applicable waste disposal regulation. Deliver completely emptied containers to approved

waste disposal authorities.

**Waste codes / waste designations according to LoW**

No information.

**Waste treatment-relevant information**

No information.





**Sewage disposal-relevant information**

No information.

**Other disposal recommendations**

No information.

## SECTION 14: TRANSPORT INFORMATION

ADR/RID	IMDG	IATA	ADN
<b>14.1 UN number</b>			
UN 1719	UN 1719	UN 1719	UN 1719
<b>14.2 UN proper shipping name</b>			
CAUSTIC ALKALI LIQUID, N.O.S.	CAUSTIC ALKALI LIQUID, N.O.S.	CAUSTIC ALKALI LIQUID, N.O.S.	CAUSTIC ALKALI LIQUID, N.O.S.
<b>14.3 Transport hazard class(es)</b>			
8	8	8	8
			
<b>14.4 Packing group</b>			
II	II	II	II
<b>14.5 Environmental hazards</b>			
NO	NO	NO	NO
<b>14.6 Special precautions for user</b>			
Limited quantities 1 L Transport category 2 Tunnel restriction code (E)	Limited quantities 1 L EmS F-A, S-B Special provisions 274 Packing Instructions P001, IBC02 Tank instructions T11 Tank special provisions TP2, TP27	Limited Quantity Packing Instructions Y840 Limited Quantity Net Qty 0.5 L Passenger Packing Instruction Packing Instructions 851 Passenger Packing Instruction Net Qty 1 L	Limited quantities 1 L
<b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>			
Goods may not be carried in bulk in bulk containers, containers or vehicles.	Goods may not be carried in bulk in bulk containers, containers or vehicles.	Not given/not applicable	Not given/not applicable



## SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)(including last amendment Commission Regulation (EU) 2015/830)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)  
not applicable

#### Regulation EC 648/2004 on detergents

5% - < 15%: phosphonates, anionic surfactants, EDTA and salts thereof

#### Special instructions

Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Terms of restriction: 3. Observe the regulations on employment and protection against dangerous substances for young people, pregnant women and nursing mothers.

### 15.2 Chemical Safety Assessment

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

## SECTION 16: OTHER INFORMATION

### Indication of changes

2.2 Label elements 3.2 Mixtures 8.1 Control parameters 8.2 Exposure controls 11.1 Information on toxicological effects  
12.1 Toxicity 12.2 Persistence and degradability 12.3 Bioaccumulative potential

### Key literature references and sources for data

No information.

### Abbreviations and acronyms

ATE - Acute Toxicity Estimate

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

CEN - European Committee for Standardisation

C&L - Classification and Labelling

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

CAS# - Chemical Abstracts Service number

CMR - Carcinogen, Mutagen, or Reproductive Toxicant

CSA - Chemical Safety Assessment

CSR - Chemical Safety Report

DMEL - Derived Minimal Effect Level

DNEL - Derived No Effect Level

DPD - Dangerous Preparations Directive 1999/45/EC

DSD - Dangerous Substances Directive 67/548/EEC

DU - Downstream User

EC - European Community

ECHA - European Chemicals Agency

EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)

EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)

EEC - European Economic Community

EINECS - European Inventory of Existing Commercial Substances

ELINCS - European List of notified Chemical Substances

EN - European Standard

EQS - Environmental Quality Standard

EU - European Union

Euphrac - European Phrase Catalogue

EWC - European Waste Catalogue (replaced by LoW – see below)

GES - Generic Exposure Scenario

GHS - Globally Harmonized System

IATA - International Air Transport Association

ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air  
IMDG - International Maritime Dangerous Goods  
IMSBC - International Maritime Solid Bulk Cargoes  
IT - Information Technology  
IUCLID - International Uniform Chemical Information Database  
IUPAC - International Union for Pure Applied Chemistry  
JRC - Joint Research Centre  
Kow - octanol-water partition coefficient  
LC50 - Lethal Concentration to 50 % of a test population  
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)  
LE - Legal Entity  
LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)  
LR - Lead Registrant  
M/I - Manufacturer / Importer  
MS - Member States  
MSDS - Material Safety Data Sheet  
OC - Operational Conditions  
OECD - Organization for Economic Co-operation and Development  
OEL - Occupational Exposure Limit  
OJ - Official Journal  
OR - Only Representative  
OSHA - European Agency for Safety and Health at work  
PBT - Persistent, Bioaccumulative and Toxic substance  
PEC - Predicted Effect Concentration  
PNEC(s) - Predicted No Effect Concentration(s)  
PPE - Personal Protection Equipment  
(Q)SAR - Qualitative Structure Activity Relationship  
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
RIP - REACH Implementation Project  
RMM - Risk Management Measure  
SCBA - Self-Contained Breathing Apparatus  
SDS - Safety data sheet  
SIEF - Substance Information Exchange Forum  
SME - Small and Medium sized Enterprises  
STOT - Specific Target Organ Toxicity  
(STOT) RE - Repeated Exposure  
(STOT) SE - Single Exposure  
SVHC - Substances of Very High Concern  
UN - United Nations  
vPvB - Very Persistent and Very Bioaccumulative

#### List of relevant H phrases

H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H314 Causes severe skin burns and eye damage.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H412 Harmful to aquatic life with long lasting effects.