

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

1.1 Product identifier

Product name

Nanotol Sanitär Cleaner Konzentrat

UFI:

8UEM-MAGR-400M-5U7K

<https://my.chemius.net/p/LO4RDz/en/pd/en>

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

Relevant identified uses

Cleaning agent. General use. Professional use.

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

SupplierCeNano GmbH & Co. KG
Paul-Huber-Str. 5
84405 Dorfen, Germany
0049 8081 952530
mike.friedrich@cenano.de

1.4 Emergency Telephone Number

Emergency

111

Supplier

Poison centre in Berlin (Giftnotruf Berlin): +49 (0)30 30686 700

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Eye Irrit. 2; H319 Causes serious eye irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)**Signal word: WARNING**

H319 Causes serious eye irritation.

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P264 Wash hands thoroughly after handling.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

Contains:

citric acid

2.3 Other hazards

PBT/vPvB

No information.

Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

Additional information

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 mixture does not contain substances that are included in the list of substances with endocrine disrupting properties established in accordance with Article 59 of the REACH Regulation, in a concentration ≥ 0.1 w/w %. The mixture does not contain substances identified as substances with endocrine disrupting properties according to the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration ≥ 0.1 w/w %.

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 Concentration Limits | Notes for substances |
|---------------------------------|--------------------------------------|-------|--|-------------------------------|-------------------------|
| citric acid | 77-92-9 201-069-1 607-750-00-3 | 5-10 | Eye Irrit. 2; H319 STOT SE 3; H335 | / | / |
| alcohols, C9-11, ethoxylated | 68439-46-3 - - | 2,5-5 | Eye Irrit. 2; H319 | / | / |

| Name | CAS EC Index REACH | % | Classification according to Regulation (EC) No 1272/2008 (CLP) | Specific Concentration Limits | Notes for substances |
|---|--|-------|---|-------------------------------|-------------------------|
| quaternary ammonium compounds, C12- 14- alkyl(hydroxyethyl) dimethyl, ethoxylated, chlorides | 1554325-20-0 - - | 1-2.5 | Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 | / | / |
| amines, coco alkyldimethyl, N- oxides | 61788-90-7 263-016-9 - 01-2119490061-47 | 0.1-1 | Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Acute 1; H400; M = 1 Aquatic Chronic 2; H411 | / | / |

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician.

Following inhalation

Remove patient to fresh air - move out of dangerous area. Keep at rest in a position comfortable for breathing. If symptoms develop and persist, seek medical attention.

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. If symptoms develop and persist, seek medical attention.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical help.

Following ingestion

Do not induce vomiting! Rinse mouth thoroughly with water. Drink plenty of water in small sips. In case of doubt or if feeling unwell seek medical help.

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

Contact with skin may cause irritation (redness, itching).

Following eye contact

Redness, tearing, pain.

Following ingestion

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

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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media

No information.

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. In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO₂).

Nitrogen oxides (NO_x).

Hydrogen chloride (HCl).

Halogenated compounds.

5.3 Advice for firefighters**Protective actions**

In case of fire or heating do not breathe fumes/vapours.

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). Use breathing protection against effects of steam/dust/aerosol.

Precautionary measures

Ensure adequate ventilation.

Emergency procedures

No action shall be taken involving any personal risk or without suitable training. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing. Do not touch or walk through spilled material. Danger of slipping on spilled product.

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

Ventilate the premises. Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. In case of bigger spill, dam the spillage, pump the liquid into appropriate labelled containers, absorb the residue with absorbent material and dispose of according to local regulations. Dispose in accordance with applicable regulations (see Section 13).

Other information

See Section 7: HANDLING AND STORAGE.

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.

Measures to prevent aerosol and dust generation

Avoid formation of aerosols. 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. Product that has been spilt and becomes wet can present a hazardous, slippery surface. Wear suitable protective equipment; see Section 8.

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. Protect from cold (prevent freezing). Keep away from food, drink and animal feeding stuffs.

Packaging materials

The original container of producer.

Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking.

Storage temperature

No information.

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

No information.

Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

No information.

PNEC values

For product

No information.

For components

No information.

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. Do not breathe vapours/aerosols. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Avoid prolonged and repeated contact with skin.

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

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

Tightly sealed safety glasses (BS EN ISO 16321-1:2022) in combination with face and eyes shield (BS EN ISO 16321-1:2022).

Hand protection

In case of prolonged exposure, wear protective gloves (EN 374). The penetration time is determined by the protective glove manufacturer and must be observed. 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. 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. Protect hands with barrier cream. Safety gloves acid resistant.

Appropriate materials

Skin protection

Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345:2022). Acid resistant protective clothes.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (BS EN 136) with filter A2-P2 (BS EN 14387).

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

Important health, safety and environmental information

| | |
|--|----------------------------------|
| Physical state | liquid |
| Shape | No information. |
| Colour | clear yellow |
| Odour | characteristic slightly aromatic |
| Odour threshold | No information. |
| Melting/freezing point or softening point | No information. |
| Boiling point or initial boiling point and boiling range | No information. |
| Flammability | No information. |
| Lower and upper explosion limit | No information. |
| Flash point | No information. |
| Auto-ignition temperature | No information. |
| Decomposition temperature | No information. |
| pH | 2.1 |
| Viscosity | No information. |
| Solubility (Water) | miscible |
| Partition coefficient n-octanol/water (log value) | No information. |
| Vapour pressure | No information. |
| Density | ca. 1 g/cm ³ at 20 °C |
| Relative vapour/gas density | No information. |
| Particle characteristics | No information. |

9.2 Other information

Information with regard to physical hazard classes

No information.

Other safety characteristics

No information.

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.
Strong bases. Strong oxidising agents.
Reducing agents.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****(a) Acute toxicity****For product**

| Exposure route | Type | Species | Time | Value | Method | Remark |
|----------------|------|---------|------|-------------|--------|--------|
| oral | ATE | / | / | 14108 mg/kg | / | CLP |

For components

| Name | Exposure route | Type | Species | Time | Value | Method | Remark |
|---|----------------|------------------|---------|------|------------------|----------|--------|
| citric acid | oral | LD ₅₀ | mouse | / | 5400 mg/kg | OECD 401 | / |
| citric acid | dermal | LD ₅₀ | rat | / | > 2000 mg/kg | OECD 402 | / |
| alcohols, C9-11, ethoxylated | oral | LD ₅₀ | rat | / | > 2000 mg/kg bw | / | / |
| alcohols, C9-11, ethoxylated | dermal | LD ₅₀ | rabbit | / | > 2000 mg/kg bw | / | / |
| quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides | oral | LD ₅₀ | rat | / | 300 - 2000 mg/kg | / | / |
| amines, coco alkyldimethyl, N-oxides | oral | LD ₅₀ | rat | / | 300 - 2000 mg/kg | OECD 401 | / |
| amines, coco alkyldimethyl, N-oxides | dermal | LD ₅₀ | rat | / | > 5000 mg/kg | OECD 402 | / |

Additional information

The product is not classified as acutely toxic.

(b) Skin corrosion/irritation

No information.

Additional information

The product is not classified as irritating to the skin.

(c) Serious eye damage/irritation

No information.

Additional information

Causes serious eye irritation.

(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.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards**Endocrine disrupting properties**

The product does not contain substances with the potential for endocrine disorders.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity****Acute (short-term) toxicity****For components**

| Name | Type | Value | Exposure time | Species | Organism | Method | Remark |
|------------------------------|------------------|-------------|---------------|----------------|-----------------------------|----------|--------|
| citric acid | LC ₅₀ | > 440 mg/L | 48 h | fish | Leuciscus idus melanotus | OECD 203 | / |
| citric acid | EC ₅₀ | 1535 mg/L | 24 h | <i>Daphnia</i> | / | / | / |
| alcohols, C9-11, ethoxylated | LC ₅₀ | 1 - 10 mg/L | 96 h | fish | <i>Oncorhynchus mykiss</i> | / | / |
| alcohols, C9-11, ethoxylated | EC ₅₀ | 1 - 10 mg/L | 48 h | crustacea | <i>Daphnia magna</i> | / | / |
| alcohols, C9-11, ethoxylated | EC ₅₀ | 1 - 10 mg/L | 72 h | algae | <i>Skeletonema costatum</i> | / | / |

| Name | Type | Value | Exposure time | Species | Organism | Method | Remark |
|--|------------------|---------------|---------------|----------------|--|----------|--------|
| quaternary ammonium compounds, C12-14-alkyl(hydroxy ethyl)dimethyl, ethoxylated, chlorides | LC ₅₀ | 10 - 100 mg/L | 96 h | fish | / | / | / |
| quaternary ammonium compounds, C12-14-alkyl(hydroxy ethyl)dimethyl, ethoxylated, chlorides | EC ₅₀ | 1 - 10 mg/L | 48 h | <i>Daphnia</i> | / | / | / |
| quaternary ammonium compounds, C12-14-alkyl(hydroxy ethyl)dimethyl, ethoxylated, chlorides | EC ₅₀ | 1 - 10 mg/L | 72 h | algae | / | / | / |
| amines, coco alkyldimethyl, N-oxides | LC ₅₀ | 1 - 10 mg/L | 96 h | fish | <i>Pimephales promelas</i> | / | / |
| amines, coco alkyldimethyl, N-oxides | EC ₅₀ | 1 - 10 mg/L | 48 h | / | <i>Daphnia magna</i> | OECD 202 | / |
| amines, coco alkyldimethyl, N-oxides | EC ₅₀ | 0.1 - 1 mg/L | 72 h | algae | <i>Pseudokirchneriella subcapitata</i> | OECD 201 | / |

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

| Name | Type | Value | Exposure time | Species | Organism | Method | Remark |
|-------------|------|----------|---------------|---------|--------------------------------|--------|--------|
| citric acid | NOEC | 425 mg/l | 8 days | algae | <i>Scenedesmus quadricauda</i> | / | / |

12.2 Persistence and degradability**Abiotic degradation, physical- and photo-chemical elimination**

No information.

Biodegradation**For product**

| Type | Rate | Time | Evaluation | Method | Remark |
|------------------|------|---------|------------|-----------|--------|
| biodegradability | 88 % | 28 days | / | OECD 301A | / |

For components

| Name | Type | Rate | Time | Evaluation | Method | Remark |
|-------------|------------------|-------|---------|-----------------------|------------|--------|
| citric acid | biodegradability | 100 % | 19 days | readily biodegradable | OECD 301 E | / |

| Name | Type | Rate | Time | Evaluation | Method | Remark |
|--------------------------------------|------------------|--------|------|-----------------------|-----------|--------|
| alcohols, C9-11, ethoxylated | biodegradation | > 60 % | / | readily biodegradable | OECD 301D | / |
| amines, coco alkyldimethyl, N-oxides | biodegradability | > 60 % | / | readily biodegradable | OECD 301B | / |

Additional information

The surfactants used in this product comply with the criteria for biodegradability under Regulation 648/2004/EC. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)**For components**

| Name | Value | Temperature °C | pH | Concentration | Method |
|-------------|-------|----------------|----|---------------|--------|
| citric acid | < 0 | / | / | / | / |

Bioconcentration factor (BCF)

No information.

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 components in this product do not meet the criteria for classification as PBT or vPvB.

12.6 Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Product is not classified as hazardous for environment. Water hazard class 1 (self-assessment): slightly hazardous for water. Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values.

For components**citric acid**

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

alcohols, C9-11, ethoxylated

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

quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides

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

amines, coco alkyldimethyl, N-oxides

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

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Product / Packaging disposal****Waste chemical**

Dispose of in accordance with applicable waste disposal regulation. Dispose the product to an authorised collector/remover of waste/company performing waste recovery. HP4 Irritant.

Waste codes / waste designations according to LoW

20 01 29* - detergents containing dangerous substances

07 03 01* - aqueous washing liquids and mother liquors

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 |
|--|---|---|---|
| 14.1 UN number or ID number | | | |
| Not dangerous according to transport regulations. | Not dangerous according to transport regulations. | Not dangerous according to transport regulations. | Not dangerous according to transport regulations. |
| 14.2 UN proper shipping name | | | |
| Not given/not applicable | Not given/not applicable | Not given/not applicable | Not given/not applicable |
| 14.3 Transport hazard class(es) | | | |
| Not given/not applicable | Not given/not applicable | Not given/not applicable | Not given/not applicable |
| 14.4 Packing group | | | |
| Not given/not applicable | Not given/not applicable | Not given/not applicable | Not given/not applicable |
| 14.5 Environmental hazards | | | |
| NO | NO | NO | NO |
| 14.6 Special precautions for user | | | |
| Limited quantities Not given/not applicable | Limited quantities Not given/not applicable | | Limited quantities Not given/not applicable |
| 14.7 Maritime transport in bulk according to IMO instruments | | | |
| | 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) 2020/878)

- 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

Ingredients according to Regulation (EC) No 648/2004 on detergents

< 5%: non-ionic surfactants, cationic surfactants, anionic surfactants

Special instructions

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%. Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Terms of restriction: 3. Water hazard class 1 (self-assessment): slightly hazardous for water. Included Directive 648/2004 of detergents.

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 2.3 Other hazards 3.2 Mixtures 4.1 Description of first aid measures 6.3 Methods and material for containment and cleaning up 7.2 Conditions for safe storage, including any incompatibilities 9.1 Information on basic physical and chemical properties 9.2 Other information 10.5 Incompatible materials 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 11.2 Information on other hazards 12.1 Toxicity 12.2 Persistence and degradability 12.3 Bioaccumulative potential 12.6 Endocrine disrupting properties 12.8 Additional information 13.1 Waste treatment methods 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Key literature references and sources for data

MSDS, Nanotol Sanitär Cleaner Konzentrat, CeNano GmbH & Co.KG, date: 21.6.2017, version: 2.00

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
IUCILID - 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

H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.



- ☑ Provided correct labelling of the product
- ☑ Compliance with the local legislation
- ☑ Provided correct classification of the product
- ☑ Provided adequate transport data

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The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.