

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

1.1 Product identifier

Product name

Nanotol Haushalt Cleaner Konzentrat

UFI:

EUCM-YAMM-3007-XYU3

<https://my.chemius.net/p/IUiwbN/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.

P102 Keep out of reach of children.

P280 Wear eye protection.

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.

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
alcohols, C9-11, ethoxylated	68439-46-3 - -	2.5-5	Eye Irrit. 2; H319	/	/
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	/	/
citric acid	77-92-9 201-069-1 607-750-00-3	1-2.5	Eye Irrit. 2; H319 STOT SE 3; H335	/	/

Name	CAS EC Index REACH	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits	Notes for substances
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. 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

Safety glasses with side protection (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.

Appropriate materials

Skin protection

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

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	9.9
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	/	/	5001 mg/kg	/	CLP

For components

Name	Exposure route	Type	Species	Time	Value	Method	Remark
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	/	/
citric acid	oral	LD ₅₀	mouse	/	5400 mg/kg	OECD 401	/
citric acid	dermal	LD ₅₀	rat	/	> 2000 mg/kg	OECD 402	/
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
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>	/	/
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>	/	/	/

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
quaternary ammonium compounds, C12-14-alkyl(hydroxy ethyl)dimethyl, ethoxylated, chlorides	EC ₅₀	1 - 10 mg/L	72 h	algae	/	/	/
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>	/	/	/
amines, coco alkyl dimethyl, N-oxides	LC ₅₀	1 - 10 mg/L	96 h	fish	<i>Pimephales promelas</i>	/	/
amines, coco alkyl dimethyl, N-oxides	EC ₅₀	1 - 10 mg/L	48 h	/	<i>Daphnia magna</i>	OECD 202	/
amines, coco alkyl dimethyl, 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
alcohols, C9-11, ethoxylated	biodegradation	> 60 %	/	readily biodegradable	OECD 301D	/
citric acid	biodegradability	100 %	19 days	readily biodegradable	OECD 301 E	/
amines, coco alkyl dimethyl, 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.

For components**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).

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).

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.

Waste codes / waste designations according to LoW

20 03 99 - municipal wastes not otherwise specified

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.

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 Haushalt Cleaner Konzentrat, CeNano GmbH & Co.KG, date: 21.6.2017, version: 1.00

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
 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

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.