

# SAFETY DATA SHEET according to regulation 1907/2006

**silco®****Product name: 9600-1****Creation date: 26.06.2015, Revision: 11.11.2022, version: 1.5**

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

### 1.1 Product identifier

Product name

9600-1

UFI:

SM30-V0GD-500T-MP8U

<https://my.chemius.net/p/Grgq84/en/pd/en>

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

Relevant identified uses

Varnish.

Uses advised against

No information.

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

Manufacturer

SILCO, D.O.O.

Šentrupert 5 a

3303 Gomilsko, Slovenia

+386 3 703 3180

msds@silco.si

### 1.4 Emergency Telephone Number

Emergency

112

Manufacturer

+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)

Flam. Liq. 3; H226 Flammable liquid and vapour.

STOT SE 3; H336 May cause drowsiness or dizziness.

Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.

### 2.2 Label elements

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

**Signal word: Warning**

H226 Flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH208 Contains Dibutyltin dilaurate, pentaerythritol tetrakis(3-mercaptopropionate), reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate. May produce an allergic reaction.

P260 Do not breathe mist/vapours.

P273 Avoid release to the environment.

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

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P501 Dispose of contents/container in accordance with national regulation.

**Contains:**

n-butyl acetate

**2.3 Other hazards**

No information.

**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
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	12-26	Flam. Liq. 3; H226 STOT SE 3; H336	/	/
2-butoxyethyl acetate	112-07-2 203-933-3 607-038-00-2 01-2119475112-47	5-10	Acute Tox. 4; H302 Acute Tox. 4; H312	/	/
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	1-5	Flam. Liq. 3; H226	/	/
heptan-2-one	110-43-0 203-767-1 606-024-00-3 01-2119902391-49	2-5	Flam. Liq. 3; H226 Acute Tox. 4; H302 Acute Tox. 4; H332	/	/
2-ethylhexan-1-ol	104-76-7 203-234-3 - 01-2119487289-20	0,3	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335	/	/

Dibutyltin dilaurate	77-58-7 201-039-8 - 01-2119496068-27	<0,25	Skin Corr. 1C; H314.1C Skin Sens. 1; H317 Eye Dam. 1; H318 Muta. 2; H341 Repr. 1A; H360FD.1A STOT SE 1; H370 STOT RE 1; H372 Aquatic Acute 1; H400; M = 1 Aquatic Chronic 1; H410; M = 1	/	/
pentaerythritol tetrakis(3-mercaptopropionate)	7575-23-7 231-472-8 - 01-2119486981-23	<0,25	Acute Tox. 4; H302 Skin Sens. 1; H317 Aquatic Acute 1; H400; M = 1 Aquatic Chronic 1; H410; M = 1	/	/
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	1065336-91-5 915-687-0 - 01-2119491304-40	<0,15	Skin Sens. 1; H317 Aquatic Acute 1; H400; M = 1 Aquatic Chronic 1; H410; M = 1	/	/
2-methoxypropyl acetate	70657-70-4 274-724-2 607-251-00-0	<0,01	Flam. Liq. 3; H226 STOT SE 3; H335 Repr. 1B; H360D.1B	/	/
2-methoxypropanol	1589-47-5 216-455-5 603-106-00-0	<0,01	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 Repr. 1B; H360D.1B	/	/

## 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.

#### Following inhalation

Remove patient to fresh air - move out of dangerous area. If symptoms occur, seek medical advice.

#### Following skin contact

Immediately remove contaminated clothing. Wash affected skin areas thoroughly with plenty of water and soap. If symptoms persist seek medical attention.

#### Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

#### Following ingestion

Do not induce vomiting! Rinse mouth thoroughly with water. 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

Vapours may cause drowsiness and dizziness. Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation. Coughing, sneezing, nasal discharge, labored breathing.

#### Following skin contact

Contact with skin may cause irritation (redness, itching). May cause sensitisation by skin contact (symptoms: itching, redness, rashes).

**Following eye contact**

Contact with eyes can cause irritation (redness, tearing, pain).

**Following ingestion**

May cause nausea/vomiting and diarrhea. Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area.

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

No information.

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

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

**Unsuitable extinguishing media**

No special precautions required.

**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 do not breathe fumes/gases. Cool containers at risk with water spray. If possible remove containers from endangered area.

**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. Keep away from sources of ignition and/or heat; No smoking!

**Emergency procedures**

Prevent access to unprotected personnel. Prevent access to unauthorised personnel. Avoid contact with skin and eyes. Do not breathe vapour or mist.

**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. Ventilate the premises.

#### 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. Keep away from sources of ignition - no smoking. Take precautionary measures against static discharges. Use spark-proof tools. Protect from open fire and other sources of ignition or heat.

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

Ensure good ventilation and extraction.

##### 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. Avoid contact with skin and eyes. Do not breathe vapours/mist. Use personal protective equipment.

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

#### Technical measures and storage conditions

Store in accordance with local regulations. Keep in tightly closed container. Keep in cool and well ventilated area. Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feeding stuffs.

#### 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
1-Methoxypropyl acetate (108-65-6)	274	50	548	100	Sk	/
2-Butoxyethyl acetate (112-07-2)	133	20	332	50	Sk	/
Butyl acetate (123-86-4)	724	150	966	200	/	/
Heptan-2-one (110-43-0)	237	50	475	100	Sk	/

#### 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 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

#### DNEL/DMEL values

##### For product

No information.

##### For components

Name	Type	Exposure route	exp. frequency	Remark	value
n-butyl acetate	Worker	inhalation	long term systemic effects	/	300 mg/m <sup>3</sup>
n-butyl acetate	Worker	inhalation	short term systemic effects	/	600 mg/m <sup>3</sup>
n-butyl acetate	Worker	inhalation	long term local effects	/	300 mg/m <sup>3</sup>
n-butyl acetate	Worker	inhalation	short term local effects	/	600 mg/m <sup>3</sup>
n-butyl acetate	Worker	dermal	long term systemic effects	/	11 mg/kg bw/day
n-butyl acetate	Worker	dermal	short term systemic effects	/	11 mg/kg bw/day
n-butyl acetate	Consumer	inhalation	long term systemic effects	/	35.7 mg/m <sup>3</sup>
n-butyl acetate	Consumer	inhalation	short term systemic effects	/	300 mg/m <sup>3</sup>
n-butyl acetate	Consumer	inhalation	long term local effects	/	35.7 mg/m <sup>3</sup>
n-butyl acetate	Consumer	inhalation	short term local effects	/	300 mg/m <sup>3</sup>
n-butyl acetate	Consumer	dermal	long term systemic effects	/	6 mg/kg bw/day
n-butyl acetate	Consumer	dermal	short term systemic effects	/	6 mg/kg bw/day
n-butyl acetate	Consumer	oral	long term systemic effects	/	2 mg/kg bw/day
n-butyl acetate	Consumer	oral	short term systemic effects	/	2 mg/kg bw/day
2-butoxyethyl acetate	Worker	inhalation	long term systemic effects	/	133 mg/m <sup>3</sup>
2-butoxyethyl acetate	Worker	inhalation	short term systemic effects	/	333 mg/m <sup>3</sup>
2-butoxyethyl acetate	Worker	dermal	long term systemic effects	/	169 mg/kg bw/day
2-butoxyethyl acetate	Worker	dermal	short term systemic effects	/	120 mg/kg bw/day

2-butoxyethyl acetate	Consumer	inhalation	long term systemic effects	/	80 mg/m <sup>3</sup>
2-butoxyethyl acetate	Consumer	inhalation	short term systemic effects	/	200 mg/m <sup>3</sup>
2-butoxyethyl acetate	Consumer	dermal	long term systemic effects	/	102 mg/kg bw/day
2-butoxyethyl acetate	Consumer	dermal	short term systemic effects	/	72 mg/kg bw/day
2-butoxyethyl acetate	Consumer	oral	long term systemic effects	/	8.6 mg/kg bw/day
2-butoxyethyl acetate	Consumer	oral	short term systemic effects	/	36 mg/kg bw/day
2-methoxy-1-methylethyl acetate	Consumer	dermal	long term systemic effects	/	54.8 mg/kg
2-methoxy-1-methylethyl acetate	Consumer	inhalation	long term systemic effects	/	33 mg/m <sup>3</sup>
2-methoxy-1-methylethyl acetate	Consumer	oral	long term systemic effects	/	1.67 mg/kg
2-methoxy-1-methylethyl acetate	Worker	dermal	long term systemic effects	/	153.5 mg/kg
2-methoxy-1-methylethyl acetate	Worker	inhalation	long term systemic effects	/	275 mg/m <sup>3</sup>

#### PNEC values

##### For product

No information.

##### For components

Name	Exposure route	Remark	value
n-butyl acetate	fresh water	/	0.18 mg/L
n-butyl acetate	water, intermittent release	fresh water	0.36 mg/L
n-butyl acetate	marine water	/	0.018 mg/L
n-butyl acetate	water treatment plant	/	35.6 mg/L
n-butyl acetate	fresh water sediment	dry weight	0.981 mg/kg
n-butyl acetate	marine water sediment	dry weight	0.098 mg/kg
n-butyl acetate	soil	dry weight	0.09 mg/kg
2-butoxyethyl acetate	fresh water	/	0.304 mg/L
2-butoxyethyl acetate	water, intermittent release	fresh water	0.56 mg/L
2-butoxyethyl acetate	marine water	/	0.03 mg/L
2-butoxyethyl acetate	water treatment plant	/	90 mg/L
2-butoxyethyl acetate	fresh water sediment	dry weight	2.03 mg/kg
2-butoxyethyl acetate	marine water sediment	dry weight	0.203 mg/kg
2-butoxyethyl acetate	soil	dry weight	0.415 mg/kg
2-butoxyethyl acetate	food chain	oral	60 mg/kg
2-methoxy-1-methylethyl acetate	soil	/	0.29 mg/kg
2-methoxy-1-methylethyl acetate	fresh water	/	0.635 mg/L
2-methoxy-1-methylethyl acetate	fresh water sediment	/	3.29 mg/kg
2-methoxy-1-methylethyl acetate	marine water	/	0.0635 mg/L
2-methoxy-1-methylethyl acetate	marine water sediment	/	0.329 mg/kg
2-methoxy-1-methylethyl acetate	water treatment plant	/	100 mg/L

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

**Structural measures to prevent exposure**

No information.

**Organisational measures to prevent exposure**

Remove all contaminated clothes immediately and wash them before reuse.

**Technical measures to prevent exposure**

Provide good ventilation and local exhaust in areas with increased concentration.

**Personal protective equipment****Eye and face protection**

Safety glasses with side 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**

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

**Respiratory protection**

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

**Physical state**

liquid

**Colour**

colourless

**Odour**

No information.

**Important health, safety and environmental information**

Odour threshold	No information.
pH	substance/mixture is non-soluble (in water)
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	Density: 1 – 1.04 g/cm <sup>3</sup>
Solubility	No information.
Partition coefficient	No information.
Auto-ignition temperature	No information.
Decomposition temperature	No information.
Viscosity	No information.
Explosive properties	No information.
Oxidising properties	No information.

## 9.2 OTHER INFORMATION

Weight organic solvents	498 g/l (VOC) 420 g/l (VOC (RFU))
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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

Protect from heat, direct sunlight, open fire, sparks.

### 10.5 Incompatible materials

Oxidants.

### 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

No information.

#### Additional information

The product is not classified for acute toxicity.

#### (b) Skin corrosion/irritation

No information.

**Additional information**

The product is not classified as irritating to skin and eyes.

**(c) Serious eye damage/irritation**

No information.

**(d) Respiratory or skin sensitisation**

No information.

**Additional information**

May cause an allergic skin reaction.

**(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**

May cause drowsiness or dizziness.

**(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**

No information.

**Chronic (long-term) toxicity**

No information.

### 12.2 Persistence and degradability

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

No information.

**Biodegradation**

No information.

### 12.3 Bioaccumulative potential

**Partition coefficient**

No information.

**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**

No evaluation.

**12.6 Other adverse effects**

No information.

**12.7 Additional information**

**For product**

Harmful to aquatic life with long lasting effects. 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 1263	UN 1263	UN 1263	UN 1263
<b>14.2 UN proper shipping name</b>			

PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)			
3	3	3	3
			
14.4 Packing group			
III	III	III	III
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			
Limited quantities 5 L Special provisions 163, 367, 650 Packing Instructions P001, IBC03, LP01, R001 Special packing provisions PP1 Transport category 3 Tunnel restriction code (D/E)	Limited quantities 5 L EmS F-E, S-E Flash point 60 °C	Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst) Y344 Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg) 10 L Packing Instructions (Pkg Inst) 355 Maximum Net Quantity/Package (Max Net Qty/Pkg) 25 L Cargo Aircraft Only, Packing Instructions (CAO, Pkg Inst) 366 Special provisions A3, A72, A192 ERG code 3L	Limited quantities 5 L
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code			
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)

EU limit values and category: B(d) 420 g/l. VOC Content: 420 g/l

Regulation EC 648/2004 on detergents

No information.

Special instructions

Water hazard class 2 (self-assessment): 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

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

### 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

H226 Flammable liquid and vapour.  
 H290 May be corrosive to metals.  
 H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H312 Harmful in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 H341 Suspected of causing genetic defects.  
 H360D May damage the unborn child.  
 H360FD May damage fertility. May damage the unborn child.  
 H361f Suspected of damaging fertility.  
 H370 Causes damage to organs.  
 H372 Causes damage to organs through prolonged or repeated exposure.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H411 Toxic to aquatic life with long lasting effects.  
 H413 May cause long lasting harmful effects to aquatic life.



- ☒ 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.*