

# SAFETY DATA SHEET

ACCORDING TO REGULATION (EC) 1907/2006



Product name: **9127 UHS Hardener**

Creation date: **15.12.2022**, Revision: **01.04.2025**, Version: **3.2**

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

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### 1.1 Product identifier

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**Product name**

9127 UHS Hardener

**UFI:**

QM8T-405W-S00U-83AY



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

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

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**Relevant identified uses**

Hardener.

**Uses advised against**

No information.

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

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**Supplier**

SILCO d.o.o.  
Sentrupert 5a  
3303 Gomilsko, Slovenia  
+386 3 703 3180  
msds@silco.si

### 1.4 Emergency Telephone Number

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**Emergency**

111

**Supplier**

112

## Section 2: Hazards identification

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### 2.1 Classification of the substance or mixture

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

Flam. Liq. 3; H226 Flammable liquid and vapour.  
Skin Sens. 1; H317 May cause an allergic skin reaction.  
Acute Tox. 4; H332 Harmful if inhaled.  
STOT SE 3; H335 May cause respiratory irritation.

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## 2.2 Label elements

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



### Signal word: **WARNING**

H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P272 Contaminated work clothing should not be allowed out of the workplace.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

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

### **Contains:**

1,6-hexamethylene diisocyanate homopolymer

n-butyl acetate

## 2.3 Other hazards

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### **PBT/vPvB**

No information.

### **Endocrine disrupting properties**

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

### **Additional information**

No information.

## Section 3: Composition/information on ingredients

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### 3.1 Substances

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For mixtures see 3.2.

### 3.2 Mixtures

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Name	CAS EC Index REACH	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits
<b>1,6-hexamethylene diisocyanate homopolymer</b>	28182-81-2 500-060-2 -	40-50	Skin Sens. 1; H317 Acute Tox. 4; H332 STOT SE 3; H335	/
<b>1-methoxy-2-propylacetate</b>	108-65-6 203-603-9 607-195-00-7	10-15	Flam. Liq. 3; H226	/
<b>2-butoxyethyl acetate</b>	112-07-2 203-933-3 607-038-00-2	2.5-5	Acute Tox. 4; H312 Acute Tox. 4; H332	/
<b>n-butyl acetate</b>	123-86-4 204-658-1 607-025-00-1	30-35	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	/
<b>hexamethylene-diisocyanate</b>	822-06-0 212-485-8 615-011-00-1	0.01-0.1	Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319 Acute Tox. 3; H331 Resp. Sens. 1; H334 STOT SE 3; H335	Skin Sens. 1; H317; C ≥ 0.5% Resp. Sens. 1; H334; C ≥ 0.5%
<b>2-methoxypropyl acetate</b>	70657-70-4 274-724-2 607-251-00-0	0.01-0.1	Flam. Liq. 3; H226 STOT SE 3; H335 Repr. 1B; H360D	/

## Section 4: First aid measures

### 4.1 Description of first aid measures

#### General notes

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Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. When it is suspected, that there may still be harmful vapours/fumes present in the air, respiratory protection (mask; self contained breathing apparatus) must be used. Wash contaminated clothing with water before removing or use gloves.

#### **Following inhalation**

Remove patient to fresh air - move out of dangerous area. In case of unconsciousness bring patient into stable side position and seek medical attention. If breathing is irregular or respiratory arrest occurs provide artificial respiration. Keep at rest in a position comfortable for breathing. 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. Consult a physician.

#### **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. 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**

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#### **Following inhalation**

May cause irritation of respiratory system. Symptoms include: headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness. Coughing, sneezing, nasal discharge, labored breathing. Vapours may cause drowsiness and dizziness. Harmful.

#### **Following skin contact**

Contact with skin may cause irritation (redness, itching). May cause sensitisation by skin contact (itching, redness, rashes). Repeated exposure may cause dry skin or cracked skin.

#### **Following eye contact**

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

#### **Following ingestion**

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

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

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Treat symptomatically.

## **Section 5: Firefighting measures**

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### **5.1 Extinguishing media**

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#### **Suitable extinguishing media**

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

#### **Unsuitable extinguishing media**

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Full water jet.

## 5.2 Special hazards arising from the substance or mixture

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### **Hazardous combustion products**

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

## 5.3 Advice for firefighters

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### **Protective actions**

In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Prolonged heating can cause an explosion. Vapours can form explosive mixtures with air. 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) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

### **Additional information**

No information.

## Section 6: ACCIDENTAL RELEASE MEASURES

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

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#### **For non-emergency personnel**

##### **Protective equipment**

No information.

##### **Precautionary measures**

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

##### **Emergency procedures**

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

##### **For emergency responders**

Use personal protective equipment.

### 6.2 Environmental precautions

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Do not allow product to reach water/drains/sewage systems or permeable soil. In case of release into the environment, inform the relevant authorities.

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

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#### **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. Use only explosion-proof instruments and equipment.

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Use spark-proof tools. Prevent release into the sewer, water, basements or confined areas.  
Ventilate the premises. Clean contaminated area with plenty of water.

#### **Other information**

No information.

## **6.4 Reference to other sections**

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See also sections 8 and 13.

## **Section 7: Handling and storage**

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### **7.1 Precautions for safe handling**

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#### **Protective measures**

##### **Measures to prevent fire**

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Use spark-proof tools. Take precautionary measures against static discharges. Vapours are heavier than air and spread along the floor. They form explosive mixtures with air.

##### **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. Remove contaminated clothes and wash them before reuse. Wear suitable protective equipment; see Section 8.

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

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#### **Technical measures and storage conditions**

Keep in a cool, dry and well ventilated place. Protect from open fire, heat and direct sunlight.  
Keep away from food, drink and animal feeding stuffs. Keep away from oxidising substances.  
Keep away from sources of ignition - no smoking.

#### **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 temperature**

No information.

#### **Storage class**

No information.

#### **Further information on storage conditions**

No information.

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## 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
<b>Isocyanates, all (as - NCO) Except methyl isocyanate</b>	0.02	/	0.07	/	Sen	1 µmol isocyanate-derived diamine/mol creatinine in urine - At the end of the period of exposure
<b>1-Methoxypropyl acetate (108-65-6)</b>	274	50	548	100	Sk	/
<b>2-Butoxyethyl acetate (112-07-2)</b>	133	20	332	50	Sk	/
<b>Butyl acetate (123-86-4)</b>	724	150	966	200	/	/

#### 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.

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## DNEL/DMEL values

### For product

No information.

### For components

Name	Type	Exposure route	exp. frequency	Remark	Value
<b>1,6-hexamethylene diisocyanate homopolymer</b>	Worker	inhalation	long term local effects	/	0.5 mg/m <sup>3</sup>
<b>1,6-hexamethylene diisocyanate homopolymer</b>	Worker	inhalation	short term local effects	/	1 mg/m <sup>3</sup>
<b>1-methoxy-2-propylacetate</b>	Worker	inhalation	long term systemic effects	/	275 mg/m <sup>3</sup>
<b>1-methoxy-2-propylacetate</b>	Worker	inhalation	short term local effects	/	550 mg/m <sup>3</sup>
<b>1-methoxy-2-propylacetate</b>	Worker	dermal	long term systemic effects	/	796 mg/kg bw/day
<b>1-methoxy-2-propylacetate</b>	Consumer	inhalation	long term systemic effects	/	33 mg/m <sup>3</sup>
<b>1-methoxy-2-propylacetate</b>	Consumer	inhalation	long term local effects	/	33 mg/m <sup>3</sup>
<b>1-methoxy-2-propylacetate</b>	Consumer	dermal	long term systemic effects	/	320 mg/kg bw/day
<b>1-methoxy-2-propylacetate</b>	Consumer	oral	long term systemic effects	/	36 mg/kg bw/day
<b>1-methoxy-2-propylacetate</b>	Consumer	oral	short term systemic effects	/	500 mg/kg bw/day
<b>2-butoxyethyl acetate</b>	Worker	inhalation	long term systemic effects	/	133 mg/m <sup>3</sup>
<b>2-butoxyethyl acetate</b>	Worker	inhalation	short term local effects	/	333 mg/m <sup>3</sup>
<b>2-butoxyethyl acetate</b>	Worker	dermal	long term systemic effects	/	169 mg/kg bw/day



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Name	Type	Exposure route	exp. frequency	Remark	Value
<b>2-butoxyethyl acetate</b>	Worker	dermal	short term systemic effects	/	120 mg/kg bw/day
<b>2-butoxyethyl acetate</b>	Consumer	inhalation	long term systemic effects	/	80 mg/m <sup>3</sup>
<b>2-butoxyethyl acetate</b>	Consumer	inhalation	short term local effects	/	200 mg/m <sup>3</sup>
<b>2-butoxyethyl acetate</b>	Consumer	dermal	long term systemic effects	/	102 mg/kg bw/day
<b>2-butoxyethyl acetate</b>	Consumer	dermal	short term systemic effects	/	72 mg/kg bw/day
<b>2-butoxyethyl acetate</b>	Consumer	oral	long term systemic effects	/	8.6 mg/kg bw/day
<b>2-butoxyethyl acetate</b>	Consumer	oral	short term systemic effects	/	36 mg/kg bw/day
<b>n-butyl acetate</b>	Worker	inhalation	long term systemic effects	/	300 mg/m <sup>3</sup>
<b>n-butyl acetate</b>	Worker	inhalation	short term systemic effects	/	600 mg/m <sup>3</sup>
<b>n-butyl acetate</b>	Worker	inhalation	long term local effects	/	300 mg/m <sup>3</sup>
<b>n-butyl acetate</b>	Worker	inhalation	short term local effects	/	600 mg/m <sup>3</sup>
<b>n-butyl acetate</b>	Worker	dermal	long term systemic effects	/	11 mg/kg bw/day
<b>n-butyl acetate</b>	Worker	dermal	short term systemic effects	/	11 mg/kg bw/day
<b>n-butyl acetate</b>	Consumer	inhalation	long term systemic effects	/	35.7 mg/m <sup>3</sup>
<b>n-butyl acetate</b>	Consumer	inhalation	short term systemic effects	/	300 mg/m <sup>3</sup>

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Name	Type	Exposure route	exp. frequency	Remark	Value
<b>n-butyl acetate</b>	Consumer	inhalation	long term local effects	/	35.7 mg/m <sup>3</sup>
<b>n-butyl acetate</b>	Consumer	inhalation	short term local effects	/	300 mg/m <sup>3</sup>
<b>n-butyl acetate</b>	Consumer	dermal	long term systemic effects	/	6 mg/kg bw/day
<b>n-butyl acetate</b>	Consumer	dermal	short term systemic effects	/	6 mg/kg bw/day
<b>n-butyl acetate</b>	Consumer	oral	long term systemic effects	/	2 mg/kg bw/day
<b>n-butyl acetate</b>	Consumer	oral	short term systemic effects	/	2 mg/kg bw/day
<b>hexamethylene -di-isocyanate</b>	Worker	inhalation	long term systemic effects	/	0.035 mg/m <sup>3</sup>
<b>hexamethylene -di-isocyanate</b>	Worker	inhalation	long term local effects	/	0.035 mg/m <sup>3</sup>
<b>hexamethylene -di-isocyanate</b>	Worker	inhalation	short term systemic effects	/	0.07 mg/m <sup>3</sup>

## PNEC values

### For product

No information.

### For components

Name	Exposure route	Remark	Value
<b>1,6-hexamethylene diisocyanate homopolymer</b>	fresh water	/	0.127 mg/L
<b>1,6-hexamethylene diisocyanate homopolymer</b>	water, intermittent release	/	1.27 mg/L
<b>1,6-hexamethylene diisocyanate homopolymer</b>	marine water	/	0.013 mg/L
<b>1,6-hexamethylene diisocyanate homopolymer</b>	water treatment plant	/	88 mg/L
<b>1,6-hexamethylene diisocyanate homopolymer</b>	fresh water sediment	dry weight	266701 mg/kg
<b>1,6-hexamethylene diisocyanate homopolymer</b>	marine water sediment	dry weight	26670 mg/kg

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Name	Exposure route	Remark	Value
<b>1,6-hexamethylene diisocyanate homopolymer</b>	soil	dry weight	53183 mg/kg
<b>1-methoxy-2-propylacetate</b>	fresh water	/	0.635 mg/L
<b>1-methoxy-2-propylacetate</b>	water, intermittent release	/	6.35 mg/L
<b>1-methoxy-2-propylacetate</b>	marine water	/	0.064 mg/L
<b>1-methoxy-2-propylacetate</b>	water treatment plant	/	100 mg/L
<b>1-methoxy-2-propylacetate</b>	fresh water sediment	dry weight	3.29 mg/kg
<b>1-methoxy-2-propylacetate</b>	marine water sediment	dry weight	0.329 mg/kg
<b>1-methoxy-2-propylacetate</b>	soil	dry weight	0.29 mg/kg
<b>2-butoxyethyl acetate</b>	fresh water	/	0.304 mg/L
<b>2-butoxyethyl acetate</b>	water, intermittent release	/	0.56 mg/L
<b>2-butoxyethyl acetate</b>	marine water	/	0.03 mg/L
<b>2-butoxyethyl acetate</b>	water treatment plant	/	90 mg/L
<b>2-butoxyethyl acetate</b>	fresh water sediment	dry weight	2.03 mg/kg
<b>2-butoxyethyl acetate</b>	marine water sediment	dry weight	0.203 mg/kg
<b>2-butoxyethyl acetate</b>	soil	dry weight	0.415 mg/kg
<b>2-butoxyethyl acetate</b>	secondary poisoning	food	60 mg/kg
<b>n-butyl acetate</b>	fresh water	/	0.18 mg/L
<b>n-butyl acetate</b>	water, intermittent release	/	0.36 mg/L
<b>n-butyl acetate</b>	marine water	/	0.018 mg/L
<b>n-butyl acetate</b>	water treatment plant	/	35.6 mg/L
<b>n-butyl acetate</b>	fresh water sediment	dry weight	0.981 mg/kg
<b>n-butyl acetate</b>	marine water sediment	dry weight	0.098 mg/kg
<b>n-butyl acetate</b>	soil	dry weight	0.09 mg/kg
<b>hexamethylene-diisocyanate</b>	soil	/	0.0026 mg/kg
<b>hexamethylene-diisocyanate</b>	fresh water	/	0.0774 mg/L

## 8.2 Exposure controls

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## **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.

### **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. 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**

Protective gloves (EN ISO 374-1:2016). 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**

Protective antistatic clothing EN 1149 (1:2006, 2:1998 and 3:2004, 5:2008), protective antistatic shoes (EN 20345:2022). At high risk of skin exposure chemical suits (BS EN 13034:2005+A1:2009) and boots may be required (BS EN ISO 20345:2022+A1:2024).

### **Respiratory protection**

In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387). 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 BS EN 137, BS 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**

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## 9.1 Information on basic physical and chemical properties

### Important health, safety and environmental information

Physical state	liquid
Shape	No information.
Colour	colourless
Odour	No information.
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	28 °C
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	Substance/mixture is non-soluble (in water). Does not apply
Viscosity	No information.
Solubility	No information.
Partition coefficient n-octanol/water (log value)	No information.
Vapour pressure	No information.
Density	0.99 – 1.05 g/cm <sup>3</sup>
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

Weight organic solvents	490 g/l (VOC) 490 g/l (VOC (CH))
Solids content	50.5 %

## Section 10: STABILITY AND REACTIVITY

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## 10.1 Reactivity

No information.

## 10.2 Chemical stability

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

## 10.3 Possibility of hazardous reactions

Vapours and air can form flammable or explosive mixtures.

## 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 hazard classes as defined in Regulation (EC) No 1272/2008

#### (a) Acute toxicity

##### For components

Name	Exposure route	Type	Species	Time	Value	Method	Remark
1,6-hexamethylene diisocyanate homopolymer	oral	LD <sub>50</sub>	rat	/	> 5000 mg/kg	/	/
1,6-hexamethylene diisocyanate homopolymer	dermal	LD <sub>50</sub>	rabbit	/	> 2000 mg/kg	/	/

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Name	Exposure route	Type	Species	Time	Value	Method	Remark
<b>1,6-hexamethylene diisocyanate homopolymer</b>	inhalation	LC <sub>50</sub>	rat	4 h	2.18 mg/l	/	/
<b>1-methoxy-2-propylacetate</b>	oral	LD <sub>50</sub>	rat	/	8530 mg/kg	/	/
<b>1-methoxy-2-propylacetate</b>	inhalation	LC <sub>50</sub>	rat	4 h	35.7 mg/l	/	vapour
<b>1-methoxy-2-propylacetate</b>	dermal	LD <sub>50</sub>	rat	/	5000 mg/kg	/	/
<b>2-butoxyethyl acetate</b>	oral	LD <sub>50</sub>	rat	/	2400 mg/kg	/	/
<b>2-butoxyethyl acetate</b>	dermal	LD <sub>50</sub>	rabbit	/	1500 mg/kg	/	/
<b>n-butyl acetate</b>	dermal	LD <sub>50</sub>	rabbit	/	5000 mg/kg	/	/
<b>n-butyl acetate</b>	inhalation	LC <sub>50</sub>	rat	4 h	9.6 - 29.2 mg/l	/	dust/aerosol
<b>n-butyl acetate</b>	oral	LD <sub>50</sub>	rat	/	4700 mg/kg	/	/
<b>hexamethylene-diisocyanate</b>	oral	LD <sub>50</sub>	rat	/	746 mg/kg	/	/
<b>hexamethylene-diisocyanate</b>	dermal	LD <sub>50</sub>	rabbit	/	593 mg/kg	/	/
<b>hexamethylene-diisocyanate</b>	inhalation	LC <sub>50</sub>	rat	8 h	0.124 mg/l	OECD 403	vapour

## Additional information

Harmful if inhaled.

## (b) Skin corrosion/irritation

### For components

Name	Species	Time	result	Method	Remark
<b>2-butoxyethyl acetate</b>	/	/	Prolonged and repeated contact can cause dermatitis.	/	/

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## Additional information

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

## (c) Serious eye damage/irritation

### For components

Name	Exposure route	Species	Time	result	Method	Remark
<b>1-methoxy-2-propylacetate</b>	/	/	/	May cause irritation.	/	/
<b>2-butoxyethyl acetate</b>	/	/	/	Blistering on cornea.	/	/
<b>2-butoxyethyl acetate</b>	/	/	/	Contact with eyes causes irritation.	/	/
<b>2-butoxyethyl acetate</b>	/	/	/	Contact with the eyes is painful.	/	/

## (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

### For components

Name	Exposure route	Type	Species	Time	Exposure	organ	Value	result	Method	Rem
<b>2-butoxyethyl acetate</b>	inhalation	/	/	/	/	/	/	Vapours can cause headache and vomiting.	/	/
<b>2-butoxyethyl acetate</b>	inhalation	/	/	/	/	/	/	Narcosis and depression of the central nervous system, damage to the liver and kidneys.	/	/



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Name	Exposure route	Type	Species	Time	Exposure	organ	Value	result	Method	Remarks
2-methoxypropyl acetate	-	-	/	/	/	/	/	Category 3	/	Respiratory irritant

## Additional information

May cause drowsiness or dizziness. May cause respiratory irritation.

### (i) STOT-repeated exposure

No information.

## Additional information

Repeated exposure may cause skin dryness or cracking. 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

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Name	Type	Value	Exposure time	Species	Organism	Method	Remark
<b>1,6-hexamethylene diisocyanate homopolymer</b>	EC <sub>50</sub>	100 mg/L	48 h	daphnia	/	/	/
<b>1,6-hexamethylene diisocyanate homopolymer</b>	EC <sub>50</sub>	51 mg/L	72 h	algae	/	/	/
<b>1-methoxy-2-propylacetate</b>	LC <sub>50</sub>	100 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	/	/
<b>1-methoxy-2-propylacetate</b>	EC <sub>50</sub>	500 mg/L	48 h	crustacea	/	/	/
<b>2-butoxyethyl acetate</b>	EC <sub>50</sub>	150 mg/L	48 h	crustacea	/	/	/
<b>2-butoxyethyl acetate</b>	EC <sub>50</sub>	500 mg/L	72 h	algae	/	/	/
<b>2-butoxyethyl acetate</b>	LC <sub>50</sub>	80 mg/L	96 h	fish	/	/	/
<b>2-butoxyethyl acetate</b>	EC <sub>50</sub>	2800 mg/L	0	bacteria	/	/	/
<b>n-butyl acetate</b>	LC <sub>50</sub>	18 mg/L	96 h	fish	/	/	/
<b>n-butyl acetate</b>	EC <sub>50</sub>	44 mg/L	48 h	crustacea	/	/	/

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Name	Type	Value	Exposure time	Species	Organism	Method	Remark
<b>n-butyl acetate</b>	EC <sub>50</sub>	675 mg/L	72 h	algae	/	/	/

## 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 n-octanol/water (log value)

No information.

### Bioconcentration factor (BCF)

#### For components

Name	Species	Organism	Value	Duration	Evaluation	Method	Remark
<b>1-methoxy-2-propylacetate</b>	organism	/	0.43	/	/	/	/

## 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 Endocrine disrupting properties

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

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## 12.7 Other adverse effects

No information.

## 12.8 Additional information

### For product

Product is not classified as hazardous for environment. Do not allow to reach ground water, water courses or sewage system.

### For components

#### 1-methoxy-2-propylacetate

Water hazard class 1 (Self-assessment): slightly hazardous for water

## Section 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product / Packaging disposal

##### Waste chemical

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

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

No information.

##### Packaging

Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents. Uncleaned containers should not be perforated, cut or welded. Empty containers represent a fire hazard as they may contain flammable product residues and vapours.

##### 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 or ID number</b>			
UN 1263	UN 1263	UN 1263	UN 1263





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ADR/RID	IMDG	IATA	ADN
<b>14.2 UN proper shipping name</b>			
PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
<b>14.3 Transport hazard class(es)</b>			
3	3	3	3
			
<b>14.4 Packing group</b>			
III	III	III	III
<b>14.5 Environmental hazards</b>			
NO	NO	NO	NO
<b>14.6 Special precautions for user</b>			
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) Classification code F1	Limited quantities 5 L EmS F-E, <u>S-E</u> Flash point 28 °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

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ADR/RID	IMDG	IATA	ADN
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	Goods may not be carried in bulk in bulk containers, containers or vehicles.		

## 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

No information.

#### Special instructions

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

No information.

#### 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

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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))

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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.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H360D May damage the unborn child.

EUH066 Repeated exposure may cause skin dryness or cracking.