

SAFETY DATA SHEET

ACCORDING TO REGULATION (EC) 1907/2006



Product name: **9123 UHS Hardener**

Creation date: **14.11.2022**, Revision: **01.04.2025**, Version: **5.3**

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

1.1 Product identifier

Product name

9123 UHS Hardener

UFI:

GHCC-2WSG-XF84-545N



<https://my.chemius.net/p/B1zhW2/en/pd/en>

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

Relevant identified uses

No information.

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Supplier

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

1.4 Emergency Telephone Number

Emergency

111

Supplier

112

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.
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.
STOT SE 3; H336 May cause drowsiness or dizziness.

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2.2 Label elements

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-butoxyethyl acetate

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

No information.

Section 3: Composition/information on ingredients

3.1 Substances

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
1,6-hexa methylene diisocyanate homopolymer	28182-81-2 500-060-2 -	40-50	Skin Sens. 1; H317 Acute Tox. 4; H332 STOT SE 3; H335	/
n-butyl acetate	123-86-4 204-658-1 607-025-00-1	30-35	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	/
1-methoxy-2-propyl acetate	108-65-6 203-603-9 607-195-00-7	10-15	Flam. Liq. 3; H226	/
2-butoxyethyl acetate	112-07-2 203-933-3 607-038-00-2	2.5-5	Acute Tox. 4; H312 Acute Tox. 4; H332	/
hexa methylene-diisocyanate	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%
2-methoxypropyl acetate	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

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

Treat symptomatically.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

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Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

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

5.3 Advice for firefighters

Protective actions

In case of fire 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

6.1 Personal precautions, protective equipment and emergency procedures

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

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

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

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. 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

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 ³	ml/m ³	Short-term value mg/m ³	Short-term value ml/m ³	Remark	Biological Tolerance Values
Isocyanates, all (as - NCO) Except methyl isocyanate	0.02	/	0.07	/	Sen	1 µmol isocyanate-derived diamine/mol creatinine in urine - At the end of the period of exposure
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	/	/

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
1,6-hexamethylene diisocyanate homopolymer	Worker	inhalation	long term local effects	/	0.5 mg/m ³
1,6-hexamethylene diisocyanate homopolymer	Worker	inhalation	short term local effects	/	1 mg/m ³
n-butyl acetate	Worker	inhalation	long term systemic effects	/	300 mg/m ³
n-butyl acetate	Worker	inhalation	short term systemic effects	/	600 mg/m ³
n-butyl acetate	Worker	inhalation	long term local effects	/	300 mg/m ³
n-butyl acetate	Worker	inhalation	short term local effects	/	600 mg/m ³
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 ³
n-butyl acetate	Consumer	inhalation	short term systemic effects	/	300 mg/m ³
n-butyl acetate	Consumer	inhalation	long term local effects	/	35.7 mg/m ³
n-butyl acetate	Consumer	inhalation	short term local effects	/	300 mg/m ³
n-butyl acetate	Consumer	dermal	long term systemic effects	/	6 mg/kg bw/day

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Name	Type	Exposure route	exp. frequency	Remark	Value
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
1-methoxy-2-propylacetate	Worker	inhalation	long term systemic effects	/	275 mg/m ³
1-methoxy-2-propylacetate	Worker	inhalation	short term local effects	/	550 mg/m ³
1-methoxy-2-propylacetate	Worker	dermal	long term systemic effects	/	796 mg/kg bw/day
1-methoxy-2-propylacetate	Consumer	inhalation	long term systemic effects	/	33 mg/m ³
1-methoxy-2-propylacetate	Consumer	inhalation	long term local effects	/	33 mg/m ³
1-methoxy-2-propylacetate	Consumer	dermal	long term systemic effects	/	320 mg/kg bw/day
1-methoxy-2-propylacetate	Consumer	oral	long term systemic effects	/	36 mg/kg bw/day
1-methoxy-2-propylacetate	Consumer	oral	short term systemic effects	/	500 mg/kg bw/day
2-butoxyethyl acetate	Worker	inhalation	long term systemic effects	/	133 mg/m ³
2-butoxyethyl acetate	Worker	inhalation	short term local effects	/	333 mg/m ³
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

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Name	Type	Exposure route	exp. frequency	Remark	Value
2-butoxyethyl acetate	Consumer	inhalation	long term systemic effects	/	80 mg/m ³
2-butoxyethyl acetate	Consumer	inhalation	short term local effects	/	200 mg/m ³
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
hexamethylene -di-isocyanate	Worker	inhalation	long term systemic effects	/	0.035 mg/m ³
hexamethylene -di-isocyanate	Worker	inhalation	long term local effects	/	0.035 mg/m ³
hexamethylene -di-isocyanate	Worker	inhalation	short term systemic effects	/	0.07 mg/m ³

PNEC values

For product

No information.

For components

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

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Name	Exposure route	Remark	Value
1,6-hexamethylene diisocyanate homopolymer	marine water sediment	dry weight	26670 mg/kg
1,6-hexamethylene diisocyanate homopolymer	soil	dry weight	53183 mg/kg
n-butyl acetate	fresh water	/	0.18 mg/L
n-butyl acetate	water, intermittent release	/	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
1-methoxy-2-propylacetate	fresh water	/	0.635 mg/L
1-methoxy-2-propylacetate	water, intermittent release	/	6.35 mg/L
1-methoxy-2-propylacetate	marine water	/	0.064 mg/L
1-methoxy-2-propylacetate	water treatment plant	/	100 mg/L
1-methoxy-2-propylacetate	fresh water sediment	dry weight	3.29 mg/kg
1-methoxy-2-propylacetate	marine water sediment	dry weight	0.329 mg/kg
1-methoxy-2-propylacetate	soil	dry weight	0.29 mg/kg
2-butoxyethyl acetate	fresh water	/	0.304 mg/L
2-butoxyethyl acetate	water, intermittent release	/	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	secondary poisoning	food	60 mg/kg
hexamethylene-diisocyanate	soil	/	0.0026 mg/kg
hexamethylene-diisocyanate	fresh water	/	0.0774 mg/L

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8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols.

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.

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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	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 ³
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 %

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Section 10: STABILITY AND REACTIVITY

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 ₅₀	rat	/	> 5000 mg/kg	/	/
1,6-hexamethylene diisocyanate homopolymer	dermal	LD ₅₀	rabbit	/	> 2000 mg/kg	/	/

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Name	Exposure route	Type	Species	Time	Value	Method	Remark
1,6-hexamethylene diisocyanate homopolymer	inhalation	LC ₀	rat	4 h	2.18 mg/l	/	/
n-butyl acetate	dermal	LD ₅₀	rabbit	/	5000 mg/kg	/	/
n-butyl acetate	inhalation	LC ₅₀	rat	4 h	9.6 - 29.2 mg/l	/	dust/aerosol
n-butyl acetate	oral	LD ₅₀	rat	/	4700 mg/kg	/	/
1-methoxy-2-propylacetate	oral	LD ₅₀	rat	/	8530 mg/kg	/	/
1-methoxy-2-propylacetate	inhalation	LC ₅₀	rat	4 h	35.7 mg/l	/	vapour
1-methoxy-2-propylacetate	dermal	LD ₅₀	rat	/	5000 mg/kg	/	/
2-butoxyethyl acetate	oral	LD ₅₀	rat	/	2400 mg/kg	/	/
2-butoxyethyl acetate	dermal	LD ₅₀	rabbit	/	1500 mg/kg	/	/
hexamethylene-diisocyanate	oral	LD ₅₀	rat	/	746 mg/kg	/	/
hexamethylene-diisocyanate	dermal	LD ₅₀	rabbit	/	593 mg/kg	/	/
hexamethylene-diisocyanate	inhalation	LC ₅₀	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
2-butoxyethyl acetate	/	/	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
1-methoxy-2-propylacetate	/	/	/	May cause irritation.	/	/
2-butoxyethyl acetate	/	/	/	Blistering on cornea.	/	/
2-butoxyethyl acetate	/	/	/	Contact with eyes causes irritation.	/	/
2-butoxyethyl acetate	/	/	/	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
2-butoxyethyl acetate	inhalation	/	/	/	/	/	/	Vapours can cause headache and vomiting.	/	/
2-butoxyethyl acetate	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
1,6-hexamethylene diisocyanate homopolymer	EC ₅₀	100 mg/L	48 h	daphnia	/	/	/
1,6-hexamethylene diisocyanate homopolymer	EC ₅₀	51 mg/L	72 h	algae	/	/	/
n-butyl acetate	LC ₅₀	18 mg/L	96 h	fish	/	/	/
n-butyl acetate	EC ₅₀	44 mg/L	48 h	crustacea	/	/	/
n-butyl acetate	EC ₅₀	675 mg/L	72 h	algae	/	/	/
1-methoxy-2-propylacetate	LC ₅₀	100 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	/	/
1-methoxy-2-propylacetate	EC ₅₀	500 mg/L	48 h	crustacea	/	/	/
2-butoxyethyl acetate	EC ₅₀	150 mg/L	48 h	crustacea	/	/	/
2-butoxyethyl acetate	EC ₅₀	500 mg/L	72 h	algae	/	/	/
2-butoxyethyl acetate	LC ₅₀	80 mg/L	96 h	fish	/	/	/

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Name	Type	Value	Exposure time	Species	Organism	Method	Remark
2-butoxyethyl acetate	EC ₅₀	2800 mg/L	0	bacteria	/	/	/

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
1-methoxy-2-propylacetate	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
14.1 UN number or ID number			
UN 1263	UN 1263	UN 1263	UN 1263





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ADR/RID	IMDG	IATA	ADN
14.2 UN proper shipping name			
PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
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) 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
14.7 Maritime transport in bulk according to IMO instruments	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

14. Transport 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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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.