H6005

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878
Issue date: 3/18/2016 Revision date: 1/2/2023 Supersedes version of: 8/21/2020 Version: 6.00

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

1.1. Product identifier

Product form : Mixture
Name : Hardener
Trade name : H6005

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

1.2.1. Relevant identified uses

Use of the substance/mixture : The product is intended for professional use
Hardener
standard
fast
slow
extra slow

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

NOVOL Sp. z o.o.
Żabikowska 7/9
62-052 KOMORNIKI
Poland
T 0048618109800 - F 0048618109809
www.novol.com
E-mail address of competent person responsible for the SDS : dokumentacja@novol.com

1.4. Emergency telephone number

Emergency number : 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 3	H226
Acute toxicity (dermal), Category 4	H312
Acute toxicity (inhalation:dust,mist) Category 4	H332
Skin corrosion/irritation, Category 2	H315
Skin sensitisation, Category 1	H317
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS02 GHS07

Signal word (CLP) : Warning

Contains	:	xylene
Hazard statements (CLP)	:	H226 - Flammable liquid and vapour. H312+H332 - Harmful in contact with skin or if inhaled. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H335 - May cause respiratory irritation.
Precautionary statements (CLP)	:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 - Avoid breathing vapours, spray. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P312 - Call doctor if you feel unwell.
EUH-statements	:	EUH204 - Contains isocyanates. May produce an allergic reaction.
Extra phrases	:	As from 24 August 2023 adequate training is required before industrial or professional use.

2.3. Other hazards

Other hazards which do not result in classification	:	Can react violently with alkalis, as well as a lot of organic products such as alcohols and amines. Reacts with water, generates gases or heat and overpressure : rupture containers. Polymerizes on exposure to temperature rise: pressure build-up may cause closed container to burst.

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hexamethylen-1,6-Diisocyanat Homopolimer	CAS-No.: 28182-81-2 EC-No.: 931-274-8 REACH-no: 01-2119485796-17	45 – 55	Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335
2-methoxy-1-methylethyl acetate substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 108-65-6 EC-No.: 203-603-9 EC Index-No.: 607-195-00-7 REACH-no: 01-2119475791-29	20 – 45	Flam. Liq. 3, H226
2-butoxyethyl acetate; butylglycol acetate substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 112-07-2 EC-No.: 203-933-3 EC Index-No.: 607-038-00-2 REACH-no: 01-2119475112-47	0 – 38	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312
xylene substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit (Note C)	CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9 REACH-no: 01-2119488216-32	0 – 30	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hexamethylene-di-isocyanate (Note 2)	CAS-No.: 822-06-0 EC-No.: 212-485-8 EC Index-No.: 615-011-00-1 REACH-no: 01-2119457571-37	< 0.25	Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits**
hexamethylene-di-isocyanate	CAS-No.: 822-06-0 EC-No.: 212-485-8 EC Index-No.: 615-011-00-1 REACH-no: 01-2119457571-37	(0.5 ≤C ≤ 100) Resp. Sens. 1, H334 (0.5 ≤C ≤ 100) Skin Sens. 1, H317

Note 2 : The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.
Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : General information. Refer to section 11.
First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact : After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If skin irritation continues, consult a doctor.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
First-aid measures after ingestion : If swallowed: rinse mouth. Do NOT induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : Vapours may cause drowsiness and dizziness.
Symptoms/effects after skin contact : Prolonged or repeated contact may cause skin to become dry.
Symptoms/effects after eye contact : May cause eye irritation.

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 : Dry chemical, CO2, alcohol-resistant foam or waterspray.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Carbon monoxide. Nitrogen oxides. Other toxic gases.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Remove ignition sources. Ensure that there is a suitable ventilation system. Avoid any direct or indirect contact with ingredients released. Avoid contact with skin and eyes. Use personal protective equipment as required. See Section 8.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. See Section 8.

6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter into surface water or drains. Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

6.3. Methods and material for containment and cleaning up

For containment : Cover spill with non combustible material, e.g.: sand, earth, vermiculite. Mechanically recover the product.

6.4. Reference to other sections

Disposal considerations. See Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Protect from moisture. Protect against frost.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

xylene (1330-20-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Xylene, mixed isomers, pure
IOEL TWA [ppm]	50 ppm

xylene (1330-20-7)	
IOEL STEL	442 mg/m³
IOEL STEL [ppm]	100 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	Xylene
WEL TWA (OEL TWA) [1]	220 mg/m³ o-,m-,p- or mixed isomers
WEL TWA (OEL TWA) [2]	50 ppm o-,m-,p- or mixed isomers
WEL STEL (OEL STEL)	441 mg/m³ o-,m-,p- or mixed isomers
WEL STEL (OEL STEL) [ppm]	100 ppm o-,m-,p- or mixed isomers
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	Xylene, o-, m-, p- or mixed isomers
BMGV	650 mmol/mol Creatinine Parameter: methyl hippuric acid - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

2-methoxy-1-methylethyl acetate (108-65-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-Methoxy-1-methylethylacetate
IOEL TWA [ppm]	50 ppm
IOEL STEL	550 mg/m³
IOEL STEL [ppm]	100 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	1-Methoxypropyl acetate
WEL TWA (OEL TWA) [1]	274 mg/m³
WEL TWA (OEL TWA) [2]	50 ppm
WEL STEL (OEL STEL)	548 mg/m³
WEL STEL (OEL STEL) [ppm]	100 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

2-butoxyethyl acetate; butylglycol acetate (112-07-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-Butoxyethyl acetate
IOEL TWA [ppm]	20 ppm
IOEL STEL	333 mg/m³

2-butoxyethyl acetate; butylglycol acetate (112-07-2)	
IOEL STEL [ppm]	50 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	2-Butoxyethyl acetate
WEL TWA (OEL TWA) [1]	133 mg/m³
WEL TWA (OEL TWA) [2]	20 ppm
WEL STEL (OEL STEL)	332 mg/m³
WEL STEL (OEL STEL) [ppm]	50 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	EN 482. Workplace exposure - General requirements for the performance of procedures for the measurement of chemical agents.

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

hexamethylene-di-isocyanate (822-06-0)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	0.07 mg/m³
Long-term - local effects, inhalation	0.035 mg/m³
PNEC (STP)	
PNEC sewage treatment plant	8.42 mg/l

Hexamethylen-1,6-Diisocyanat Homopolimer (28182-81-2)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	1 mg/m³
Long-term - local effects, inhalation	0.5 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.127 mg/l
PNEC aqua (marine water)	0.0127 mg/l
PNEC aqua (intermittent, freshwater)	1.27 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	266701 mg/kg dwt
PNEC sediment (marine water)	26670 mg/kg dwt
PNEC (Soil)	
PNEC soil	53183 mg/kg dwt

Hexamethylen-1,6-Diisocyanat Homopolimer (28182-81-2)	
PNEC (STP)	
PNEC sewage treatment plant	88 mg/l

xylene (1330-20-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	289 mg/m³
Acute - local effects, inhalation	289 mg/m³
Long-term - systemic effects, dermal	180 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	77 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	174 mg/m³
Acute - local effects, inhalation	174 mg/m³
Long-term - systemic effects,oral	1.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14.8 mg/m³
Long-term - systemic effects, dermal	108 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.327 mg/l
PNEC aqua (marine water)	0.327 mg/l
PNEC aqua (intermittent, freshwater)	0.327 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	12.46 mg/kg dwt
PNEC sediment (marine water)	12.46 mg/kg dwt
PNEC (Soil)	
PNEC soil	2.31 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	6.58 mg/l

2-methoxy-1-methylethyl acetate (108-65-6)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	550 mg/m³
Long-term - systemic effects, dermal	796 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	275 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	36 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	33 mg/m³
Long-term - systemic effects, dermal	320 mg/kg bodyweight/day
Long-term - local effects, inhalation	33 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.635 mg/l
PNEC aqua (marine water)	0.0635 mg/l

2-methoxy-1-methylethyl acetate (108-65-6)	
PNEC aqua (intermittent, freshwater)	6.35 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.29 mg/kg dwt
PNEC sediment (marine water)	0.329 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.29 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

2-butoxyethyl acetate; butylglycol acetate (112-07-2)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	120 mg/kg bodyweight/day
Acute - local effects, inhalation	333 mg/m³
Long-term - systemic effects, dermal	169 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	133 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	72 mg/kg bodyweight/day
Acute - systemic effects, oral	36 mg/kg bodyweight/day
Acute - local effects, inhalation	200 mg/m³
Long-term - systemic effects,oral	8.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	80 mg/m³
Long-term - systemic effects, dermal	102 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.304 mg/l
PNEC aqua (marine water)	0.0304 mg/l
PNEC aqua (intermittent, freshwater)	0.56 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	2.03 mg/kg dwt
PNEC sediment (marine water)	0.203 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.415 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	60 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	90 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Safety glasses

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless.
Odour	:	characteristic.
Odour threshold	:	0.9 – 9 mg/m³ Xylene
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	140 °C
Flammability	:	Not applicable
Explosive properties	:	No data available.
Explosive limits	:	Not available
Lower explosion limit	:	0.9 vol % Hexamethylene-1,6-diisocyanate
Upper explosion limit	:	9.5 vol % Hexamethylene-1,6-diisocyanate
Flash point	:	24 °C
Auto-ignition temperature	:	≈ 430 °C
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	Not available
Solubility	:	Slightly soluble.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	≈ 1 g/cm³

Relative density : Not available
Relative vapour density at 20°C : Not available
Particle characteristics : Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Can react violently with alkalis, as well as a lot of organic products such as alcohols and amines. Reacts with water, generates gases or heat and overpressure : rupture containers. Polymerizes on exposure to temperature rise: pressure build-up may cause closed container to burst.

10.4. Conditions to avoid

Keep away from sources of ignition. Prevent build-up of electrostatic charges (e.g, by grounding). Protect from sunlight. Avoid high temperatures. Protect from moisture. Keep out of frost.

10.5. Incompatible materials

No contact with: strong acids, strong bases and strong oxidants. Do not allow contact with water.

10.6. Hazardous decomposition products

Carbon monoxide. Nitrogen oxides. Other toxic gases.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified. (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Harmful in contact with skin.
Acute toxicity (inhalation) : Harmful if inhaled.

H6005	
ATE CLP (dermal)	1617.647 mg/kg bodyweight
ATE CLP (dust,mist)	1.212 mg/l/4h

hexamethylene-di-isocyanate (822-06-0)	
LD50 oral rat	710 mg/kg Source: NCIS; Toxic Substances Information Report
LD50 dermal rat	> 7000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	599 mg/kg Source: NCIS; Toxic Substances Information Report
LC50 Inhalation - Rat	0.124 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Remarks on results: other:, 95% CL: 111 - 140
LC50 Inhalation - Rat (Vapours)	0.24 mg/l Source: NCIS; Toxic Substances Information Report

Hexamethylen-1,6-Diisocyanat Homopolimer (28182-81-2)	
LD50 oral rat	> 2500 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:

xylene (1330-20-7)	
LD50 oral rat	3523 mg/kg rat
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat	27124 mg/l

2-methoxy-1-methylethyl acetate (108-65-6)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

2-butoxyethyl acetate; butylglycol acetate (112-07-2)	
LD50 oral rat	≈ 1880 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other:
LD50 dermal rabbit	≈ 1500 mg/kg bodyweight Animal: rabbit, Remarks on results: other:
LC50 Inhalation - Rat [ppm]	> 400 ppm Source: ECHA

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : May cause respiratory irritation.

hexamethylene-di-isocyanate (822-06-0)	
STOT-single exposure	May cause respiratory irritation.

Hexamethylen-1,6-Diisocyanat Homopolimer (28182-81-2)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

xylene (1330-20-7)	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)

2-methoxy-1-methylethyl acetate (108-65-6)	
NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

2-butoxyethyl acetate; butylglycol acetate (112-07-2)	
NOAEL (dermal, rat/rabbit, 90 days)	> 150 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic) : Not classified (Based on available data, the classification criteria are not met)

Not rapidly degradable

hexamethylene-di-isocyanate (822-06-0)	
LC50 - Fish [1]	≥ 82.8 mg/l Source: ECHA
EC50 72h - Algae [1]	> 77.4 mg/l Source: ECHA

Hexamethylen-1,6-Diisocyanat Homopolimer (28182-81-2)	
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): other:

xylene (1330-20-7)	
LC50 - Fish [1]	2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

2-methoxy-1-methylethyl acetate (108-65-6)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oryzias latipes
EC50 - Crustacea [1]	> 500 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	47.5 mg/l Test organisms (species): Oryzias latipes Duration: '14 d'

2-butoxyethyl acetate; butylglycol acetate (112-07-2)	
LC50 - Fish [1]	20 – 40 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	37 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	1570 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	520 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	1570 mg/l Source: ECHA

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

hexamethylene-di-isocyanate (822-06-0)	
Partition coefficient n-octanol/water (Log Pow)	1.08 Source: ICSC

2-butoxyethyl acetate; butylglycol acetate (112-07-2)	
Partition coefficient n-octanol/water (Log Pow)	1.51 Source: ECHA

12.4. Mobility in soil

hexamethylene-di-isocyanate (822-06-0)	
Mobility in soil	5 – 286 Source: ECHA

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Do not discharge into drains.
Product/Packaging disposal recommendations : This material and its container must be disposed of as hazardous waste. Do not dispose of with domestic waste. After cleaning, recycle or dispose of at an authorised site.
Additional information : Flammable vapours may accumulate in the container.
European List of Waste (LoW) code : 08 05 01* - waste isocyanates
15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
14.1. UN number or ID number		
UN 1866	UN 1866	UN 1866
14.2. UN proper shipping name		
RESIN SOLUTION	RESIN SOLUTION	Resin solution
Transport document description		
UN 1866 RESIN SOLUTION, 3, III, (D/E)	UN 1866 RESIN SOLUTION, 3, III (24°C c.c.)	UN 1866 Resin solution, 3, III
14.3. Transport hazard class(es)		
3	3	3
		
14.4. Packing group		
III	III	III

ADR	IMDG	IATA
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	F1
Limited quantities (ADR)	:	5l
Special packing provisions (ADR)	:	PP1
Mixed packing provisions (ADR)	:	MP19
Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V12
Tunnel restriction code (ADR)	:	D/E
EAC code	:	•3Y

Transport by sea

Special provisions (IMDG)	:	223, 955
Limited quantities (IMDG)	:	5 L
Special packing provisions (IMDG)	:	PP1
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-E
Stowage category (IMDG)	:	A

Air transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
SDS EU format according to COMMISSION REGULATION (EU) 2020/878.

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant

Abbreviations and acronyms:	
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Data sources : ECHA (European Chemicals Agency).
Training advice : Handle in accordance with good industrial hygiene and safety procedures.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
EUH204	Contains isocyanates. May produce an allergic reaction.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
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.
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Flam. Liq. 3	H226	On basis of test data
Acute Tox. 4 (Dermal)	H312	Calculation method
Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Skin Sens. 1	H317	Calculation method

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
STOT SE 3	H335	Calculation method

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.