

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878
Issue date: 7/20/2011 Revision date: 1/2/2023 Supersedes version of: 7/1/2020 Version: 5.0

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

1.1. Product identifier

Product form : Mixture

Name : Hardener for acrylic products UHS

Trade name : HARD 45 STANDARD

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

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

Acute toxicity (inhalation:dust,mist) Category 4

Skin sensitisation, Category 1

Specific target organ toxicity – Single exposure, Category 3, Narcosis

Specific target organ toxicity – Single exposure, Category 3, Respiratory

H335

tract irritation

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 : n-butyl acetate

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

Hazard statements (CLP) : 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.

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.

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	< 70	Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335
n-butyl acetate substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 123-86-4 EC-No.: 204-658-1 EC Index-No.: 607-025-00-1 REACH-no: 01-2119485493-	≤ 20	Flam. Liq. 3, H226 STOT SE 3, H336
heptan-2-one; methyl amyl ketone substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 110-43-0 EC-No.: 203-767-1 EC Index-No.: 606-024-00-3 REACH-no: 01-2119902391-	< 12	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332
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	< 0.06	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

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

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-	(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

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.

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

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.

Storage temperature : 5-35 °C

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

n-butyl acetate (123-86-4)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	n-Butyl acetate	
IOEL TWA [ppm]	50 ppm	
IOEL STEL	723 mg/m³	
IOEL STEL [ppm]	150 ppm	
Regulatory reference	COMMISSION DIRECTIVE (EU) 2019/1831	
United Kingdom - Occupational Exposure Limits		
Local name	Butyl acetate	
WEL TWA (OEL TWA) [1]	724 mg/m³	
WEL TWA (OEL TWA) [2]	150 ppm	
WEL STEL (OEL STEL)	966 mg/m³	

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

n-butyl acetate (123-86-4)		
WEL STEL (OEL STEL) [ppm]	200 ppm	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	
heptan-2-one; methyl amyl ketone (110-43-0)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Heptan-2-one	
IOEL TWA [ppm]	50 ppm	
IOEL STEL	475 mg/m³	
IOEL STEL [ppm]	100 ppm	
Remark	Skin	
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC	
United Kingdom - Occupational Exposure Limits		
Local name	Heptan-2-one	
WEL TWA (OEL TWA) [1]	237 mg/m³	
WEL TWA (OEL TWA) [2]	50 ppm	
WEL STEL (OEL STEL)	475 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	

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	

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

Hexamethylen-1,6-Diisocyanat Homopolimer	(28182-81-2)	
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	
PNEC (STP)		
PNEC sewage treatment plant	88 mg/l	
n-butyl acetate (123-86-4)		
PNEC (Water)		
PNEC aqua (freshwater)	0.18 mg/l	
PNEC aqua (marine water)	0.018 mg/l	
PNEC aqua (intermittent, freshwater)	0.36 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	0.981 mg/kg dwt	
PNEC sediment (marine water)	0.0981 mg/kg dwt	
PNEC (Soil)		
PNEC soil	0.0903 mg/kg dwt	
PNEC (STP)		
PNEC sewage treatment plant	35.6 mg/l	
heptan-2-one; methyl amyl ketone (110-43-0)		
DNEL/DMEL (Workers)		
Acute - systemic effects, inhalation	1516 mg/m³	
Long-term - systemic effects, dermal	54.27 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	394.25 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	23.32 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	84.31 mg/m³	
Long-term - systemic effects, dermal	23.32 mg/kg bodyweight/day	
PNEC (Water)		
PNEC aqua (freshwater)	0.0982 mg/l	
PNEC aqua (marine water)	0.00982 mg/l	
PNEC aqua (intermittent, freshwater)	0.982 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	1.89 mg/kg dwt	
PNEC sediment (marine water)	0.189 mg/kg dwt	
PNEC (Soil)		
PNEC soil	0.321 mg/kg dwt	

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

heptan-2-one; methyl amyl ketone (110-43-0)	
PNEC (STP)	
PNEC sewage treatment plant	12.5 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 : Not available Melting point : Not applicable Freezing point : Not available : 126 - 160 °C Boiling point 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 : $32 \, ^{\circ}\text{C}$ Auto-ignition temperature : $\approx 450 \, ^{\circ}\text{C}$

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

Decomposition temperature : Not available рΗ : Not available Viscosity, kinematic : Not available Solubility Slightly soluble. Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure 14 hPa 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) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Harmful if inhaled.

HARD 45 STANDARD		
ATE CLP (dust,mist)	1.829 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)	

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

hexamethylene-di-isocyanate (822-06-0)	
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 Homopolime	r (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:
n-butyl acetate (123-86-4)	
LD50 oral rat	12.2 ml/kg Source: ECHA
LC50 Inhalation - Rat (Vapours)	> 4.9 mg/l Source: ECHA
heptan-2-one; methyl amyl ketone (110-43-0)
LD50 oral rat	≈ 1600 mg/kg bodyweight Animal: rat, Remarks on results: other:
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LC50 Inhalation - Rat	> 16.7 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation))
LC50 Inhalation - Rat (Vapours)	> 16.7 mg/l Source: ECHA
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
n-butyl acetate (123-86-4)	
рН	6.2 Temp.: 20 °C Concentration: 5,3 g/L
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
n-butyl acetate (123-86-4)	
рН	6.2 Temp.: 20 °C Concentration: 5,3 g/L
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 STOT-single exposure	 Not classified (Based on available data, the classification criteria are not met) May cause drowsiness or dizziness. May cause respiratory irritation.
hexamethylene-di-isocyanate (822-06-0)	. Iway cause drowsiness or dizziness. May cause respiratory initiation.
STOT-single exposure	May cause respiratory irritation.
Hexamethylen-1,6-Diisocyanat Homopolime	r (28182-81-2)
STOT-single exposure	May cause respiratory irritation.
n-butyl acetate (123-86-4)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
n-butyl acetate (123-86-4)	
LOAEL (oral, rat, 90 days)	500 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 798.2650 (90-Day Oral Toxicit Rodents)
	- I

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

n-butyl acetate (123-86-4)		
NOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)	
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)	
n-butyl acetate (123-86-4)		
Viscosity, kinematic	0.83 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'	
heptan-2-one; methyl amyl ketone (110-43-0)		
Viscosity, kinematic	0.979 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'	

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)

Hazardous to the aquatic environment, long-term

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

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

(chronic)

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:	
n-butyl acetate (123-86-4)		
LC50 - Fish [1]	18 mg/l Source: ECHA	
EC50 - Crustacea [1]	44 mg/l Source: ECHA	
EC50 - Other aquatic organisms [1]	32 mg/l Test organisms (species): Artemia salina	
EC50 72h - Algae [1]	674.7 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	
EC50 72h - Algae [2]	246 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
LOEC (chronic)	47.6 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
NOEC (chronic)	23.2 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
heptan-2-one; methyl amyl ketone (110-43-0)		
LC50 - Fish [1]	131 mg/l Test organisms (species): Pimephales promelas	
EC50 - Crustacea [1]	> 90.1 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae [1]	98.2 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
EC50 72h - Algae [2]	75.5 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	

12.2. Persistence and degradability

No additional information available

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

12.3. Bioaccumulative potential

hexamethylene-di-isocyanate (822-06-0)		
Partition coefficient n-octanol/water (Log Pow)	1.08 Source: ICSC	
n-butyl acetate (123-86-4)		
Partition coefficient n-octanol/water (Log Pow)	1.78 Source: HSDB	
heptan-2-one; methyl amyl ketone (110-43-0)		
Partition coefficient n-octanol/water (Log Pow) 2.26 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)

Waste treatment methods

Sewage disposal recommendations

Product/Packaging disposal recommendations

Additional information

European List of Waste (LoW) code

- : Disposal must be done according to official regulations.
- : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- : Do not discharge into drains.
- : 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.
- : Flammable vapours may accumulate in the container.
- : 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 (32°C c.c.)	UN 1866 Resin solution, 3, III	
14.3. Transport hazard class(es)			
3	3	3	

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

ADR	IMDG	IATA
3	3	3
14.4. Packing group		l
III	III	III
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		I

14.6. Special precautions for user

Overland transport

Classification code (ADR) : F1
Limited quantities (ADR) : 5I
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)

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

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

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

Abbreviations and acronyms:		
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	
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 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), 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.	
H302	Harmful if swallowed.	
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.	
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, Narcosis	

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

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 (Inhalation:dust,mist)	H332	Calculation method
Skin Sens. 1	H317	Calculation method
STOT SE 3	H336	Calculation method
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.