SAFETY DATA SHEET

MOBIHEL 2K hardener 1500

Version	Revision Date:	SDS Number:	Date of last issue: 28.11.2023
2.0	07.06.2024	MAT000416727 IL/EN	Date of first issue: 28.11.2023

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

1.1 Product identifier

Trade name : MOBIHEL 2K hardener 1500

Product code : 416727

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

Use of the Sub-stance/Mixture : Coatings and paints, thinners, paint removers

Recommended restrictions on use : Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company : Helios TBLUS d.o.o.
Količevo 65
1230 Domžale
Slovenia

Telephone Company : 386 (1) 722 4383

Telefax Company : 386 (1) 722 4310

Responsible/issuing person : 386 (1) 722 4383
productsafety@helios.si

1.4 Emergency telephone number

Ambulance (972) 101

Israel Poison Information Center +972 4 854 19 00

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Warning

Hazard statements :

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

Supplemental Hazard Statements : EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements :

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing mist or vapours.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:

Hexamethylene-di-isocyanate, polymer
n-butyl acetate
isobutyl acetate
reaction mixture of ethylbenzene, m-xylene and p-xylene

Additional Labelling

EUH204 Contains isocyanates. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Hexamethylene diisocyanate, oligomers	28182-81-2 500-060-2 01-2119485796-17	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system)	>= 30 - < 50
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system)	>= 20 - < 30
isobutyl acetate	110-19-0 203-745-1 607-026-00-7 01-2119488971-22	Flam. Liq. 2; H225 STOT SE 3; H336 (Central nervous system)	>= 1 - < 10
reaction mixture of ethylbenzene, m-xylene and p-xylene	Not Assigned 905-562-9 01-2119555267-33	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 (Respiratory system) STOT RE 2; H373 Asp. Tox. 1; H304	>= 1 - < 10
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system)	>= 1 - < 10
solvent naphtha (petroleum), light aromatic	64742-95-6 265-199-0 649-356-00-4 01-2119455851-35	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system) Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 1 - < 2.5

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.

In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Risks : May cause an allergic skin reaction.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Repeated exposure may cause skin dryness or cracking.

May cause an allergic skin reaction.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Further information on storage stability	:	No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s)	:	For further information, refer to the product technical data sheet. Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Hexamethylene-di-isocyanate, poly-mer	28182-81-2	TLV-TWA	0.005 ppm (Isocyanates)	IL OEL
		TLV-STEL	0.02 ppm (Isocyanates)	IL OEL
n-butyl acetate	123-86-4	STEL	150 ppm 723 mg/m3	2019/1831/EU
	Further information: Indicative			
		TWA	50 ppm 241 mg/m3	2019/1831/EU
	Further information: Indicative			
		TWA	50 ppm	ACGIH
		STEL	150 ppm	ACGIH
isobutyl acetate	110-19-0	TWA	50 ppm 241 mg/m3	2019/1831/EU
	Further information: Indicative			
		STEL	150 ppm 723 mg/m3	2019/1831/EU
	Further information: Indicative			
		TWA	50 ppm	ACGIH
		STEL	150 ppm	ACGIH
reaction mixture of ethylbenzene, m-xylene and p-xylene	1330-20-7	TLV-TWA	100 ppm	IL OEL
		TLV-C	150 mg/m3	IL OEL
		TWA	50 ppm 221 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 442 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	20 ppm	ACGIH
2-methoxy-1-methylethyl ace-tate	108-65-6	STEL	100 ppm 550 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	50 ppm 275 mg/m3	2000/39/EC

	Further information: Identifies the possibility of significant uptake through the skin, Indicative

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
reaction mixture of ethylbenzene, m-xylene and p-xylene	1330-20-7	methyl hippuric acid: 1.5 g/g creatinine (Urine)		IL BEI
		Methylhippuric acids: 1.5 g/g creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	ACGIH BEI

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Hexamethylene-di-isocyanate, polymer	Workers	Inhalation	Long-term local effects	0.5 mg/m3
	Workers	Inhalation	Long-term systemic effects	1 mg/m3
n-butyl acetate	Workers	Inhalation	Acute systemic effects	600 mg/m3
	Workers	Inhalation	Acute local effects	600 mg/m3
	Workers	Inhalation	Long-term systemic effects	48 mg/m3
	Workers	Inhalation	Long-term local effects	300 mg/m3
	Consumers	Inhalation	Acute systemic effects	300 mg/m3
	Consumers	Inhalation	Acute local effects	300 mg/m3
	Consumers	Inhalation	Long-term systemic effects	12 mg/m3
	Consumers	Inhalation	Long-term local effects	35.7 mg/m3
	Consumers	Dermal	Long-term systemic effects	3.4 mg/kg bw/day
	Consumers	Dermal	Acute systemic effects	6 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	2 mg/kg bw/day
	Consumers	Oral	Acute systemic effects	2 mg/kg bw/day
	Workers	Dermal	Long-term systemic effects	7 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	11 mg/kg bw/day
isobutyl acetate	Workers	Inhalation	Long-term systemic effects	300 mg/m3
	Workers	Inhalation	Acute systemic effects	600 mg/m3

	Workers	Inhalation	Long-term local effects	300 mg/m3
	Workers	Inhalation	Acute local effects	600 mg/m3
	Consumers	Inhalation	Long-term systemic effects	35.7 mg/m3
	Consumers	Inhalation	Long-term local effects	35.7 mg/m3
	Consumers	Inhalation	Acute local effects	300 mg/m3
	Workers	Dermal	Long-term systemic effects	10 mg/kg bw/day
	Consumers	Oral	Acute systemic effects	5 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	10 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	5 mg/kg bw/day
	Consumers	Dermal	Acute systemic effects	5 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	5 mg/kg bw/day
reaction mixture of ethylbenzene, m-xylene and p-xylene	Workers	Inhalation	Long-term systemic effects	77 mg/m3
	Consumers	Inhalation	Long-term local effects	65.3 mg/m3
	Workers	Inhalation	Acute systemic effects	442 mg/m3
	Workers	Inhalation	Acute local effects	289 mg/m3
	Consumers	Inhalation	Acute systemic effects	260 mg/m3
	Workers	Inhalation	Long-term local effects	221 mg/m3
	Consumers	Inhalation	Long-term systemic effects	14.8 mg/m3
	Consumers	Inhalation	Acute local effects	260 mg/m3
	Consumers	Dermal	Long-term systemic effects	108 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	16 mg/kg bw/day
	Workers	Dermal	Long-term systemic effects	180 mg/kg bw/day
2-methoxy-1-methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m3
	Workers	Inhalation	Acute local effects	550 mg/m3
	Consumers	Inhalation	Long-term systemic effects	33 mg/m3
	Consumers	Inhalation	Long-term local effects	33 mg/m3
	Workers	Dermal	Long-term systemic effects	796 mg/kg bw/day
	Consumers	Dermal	Long-term systemic	320 mg/kg

			effects	bw/day
	Consumers	Oral	Long-term systemic effects	36 mg/kg bw/day
ethyl 3-ethoxypropionate	Workers	Inhalation	Long-term systemic effects	610 mg/m3
	Workers	Inhalation	Long-term local effects	610 mg/m3
	Consumers	Inhalation	Long-term systemic effects	72.6 mg/m3
	Consumers	Inhalation	Long-term local effects	72.6 mg/m3
	Workers	Dermal	Long-term local effects	102 mg/cm2
	Workers	Dermal	Long-term systemic effects	102 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	24.2 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	1.2 mg/kg bw/day
Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified	Workers	Inhalation	Long-term systemic effects	150 mg/m3
	Consumers	Inhalation	Long-term systemic effects	32 mg/m3
	Consumers	Dermal	Long-term systemic effects	11 mg/kg bw/day
	Workers	Dermal	Long-term systemic effects	25 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	11 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Hexamethylene-di-isocyanate, polymer	Soil	505 mg/kg dry weight (d.w.)
	Marine water	0.01 mg/l
	Fresh water	0.1 mg/l
	Marine sediment	253 mg/kg dry weight (d.w.)
	Fresh water sediment	2530 mg/kg dry weight (d.w.)
	Sewage treatment plant	100 mg/l
	Intermittent use/release	1 mg/l
n-butyl acetate	Soil	0.0903 mg/kg dry weight (d.w.)
	Marine water	0.018 mg/l
	Fresh water	0.18 mg/l
	Marine sediment	0.0981 mg/kg dry weight (d.w.)
	Fresh water sediment	0.981 mg/kg dry

		weight (d.w.)
	Sewage treatment plant	35.6 mg/l
	Intermittent use/release	0.36 mg/l
isobutyl acetate	Soil	0.0755 mg/kg dry weight (d.w.)
	Marine water	0.017 mg/l
	Fresh water	0.17 mg/l
	Marine sediment	0.0877 mg/kg dry weight (d.w.)
	Fresh water sediment	0.877 mg/kg dry weight (d.w.)
	Sewage treatment plant	200 mg/l
	Intermittent use/release	0.34 mg/l
reaction mixture of ethylbenzene, m-xylene and p-xylene	Soil	2.31 mg/kg dry weight (d.w.)
	Marine water	0.327 mg/l
	Fresh water	0.327 mg/l
	Marine sediment	12.46 mg/kg dry weight (d.w.)
	Fresh water sediment	12.46 mg/kg dry weight (d.w.)
	Sewage treatment plant	6.58 mg/l
	Intermittent use/release	0.327 mg/l
2-methoxy-1-methylethyl acetate	Soil	0.29 mg/kg dry weight (d.w.)
	Marine water	0.0635 mg/l
	Fresh water	0.635 mg/l
	Marine sediment	0.329 mg/kg dry weight (d.w.)
	Fresh water sediment	3.29 mg/kg dry weight (d.w.)
	Sewage treatment plant	100 mg/l
	Intermittent use/release	0.00635 mg/l
ethyl 3-ethoxypropionate	Soil	0.048 mg/kg dry weight (d.w.)
	Marine water	0.00609 mg/l
	Fresh water	0.0609 mg/l
	Marine sediment	0.0419 mg/kg dry weight (d.w.)
	Fresh water sediment	0.419 mg/kg dry weight (d.w.)
	Sewage treatment plant	50 mg/l
	Intermittent use/release	0.609 mg/l

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Equipment should conform to EN 166
Eye wash bottle with pure water
Tightly fitting safety goggles

Hand protection

Gloves	:	Viton® (> 0,6 mm; < 240 min); ISO EN374 PE laminate (> 0,1 mm; < 240 min); ISO EN374
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Filter type	:	Organic vapour type (A)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	colourless
Odour	:	solvent-like
Odour Threshold	:	No data available
pH	:	Not applicable
Melting point/freezing point	:	-98.8 °C (calculation method (principal components, lowest value))
Boiling point/boiling range	:	117 °C (calculation method (principal components, lowest value))
Flash point	:	34 °C
Flammability (solid, gas)	:	Static-accumulating flammable liquid., Combustible Solids
Upper explosion limit / Upper flammability limit	:	10.5 %(V) (calculation method (principal components, highest value))
Lower explosion limit / Lower flammability limit	:	1.1 %(V) (calculation method (principal components, highest value))
Vapour pressure	:	< 1,100 hPa (calculation method (principal components, highest value)) (50 °C)

Relative vapour density	:	4.6 (calculation method (principal components, highest value)) (Air = 1.0)
Relative density	:	No data available
Density	:	0.984 g/cm3
Solubility(ies)		
Water solubility	:	immiscible, partly soluble
Solubility in other solvents	:	Description: miscible with most organic solvents
Partition coefficient: n-octanol/water	:	log Pow: 2.77 - 3.15 (calculation method (principal components, highest value))
Ignition temperature	:	315 °C (calculation method (principal components, highest value))
Decomposition temperature	:	No decomposition if stored and applied as directed. Hazardous decomposition products formed under fire conditions.
Viscosity		
Viscosity, kinematic	:	> 20.5 mm2/s (40 °C)
Flow time	:	12 s at 20 °C Cross section: 4 mm Method: DIN 53211
Explosive properties	:	Not applicable
Oxidizing properties	:	Sustains combustion

9.2 Other information

No data available

VOC	:	(Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)) 60.96 % Volatile CMR compounds [%]: 0.02 %

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Incompatible with strong acids and bases.

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.
Not classified due to lack of data.

Product:

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:

Hexamethylene-di-isocyanate, polymer:

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

n-butyl acetate:

Acute oral toxicity : LD50 Oral (Rat): >= 10,760 mg/kg

Acute dermal toxicity : LD50 (Rabbit): >= 5,000 mg/kg

reaction mixture of ethylbenzene, m-xylene and p-xylene:

Acute oral toxicity : LD50 Oral (Rat): >= 8,700 mg/kg

Acute inhalation toxicity : LC50 (Rat): 27.14 mg/l
Test atmosphere: vapour

Acute dermal toxicity : Assessment: The component/mixture is moderately toxic after single contact withskin.

2-methoxy-1-methylethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): > > 2,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
Test atmosphere: vapour

LC0 (Rat): 2000 ppm
Exposure time: 3 h

Acute dermal toxicity : LD50 (Rabbit): > > 2,000 mg/kg

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:

Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation

Repeated exposure may cause skin dryness or cracking.
Repeated exposure may cause skin dryness or cracking.

Product:

Remarks : May cause skin irritation and/or dermatitis.

Components:

reaction mixture of ethylbenzene, m-xylene and p-xylene:

Result : irritating

Serious eye damage/eye irritation

Not classified based on available information.
Not classified due to lack of data.

Product:

Remarks : Vapours may cause irritation to the eyes, respiratory system and the skin.

Components:

reaction mixture of ethylbenzene, m-xylene and p-xylene:

Result : Eye irritation

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified due to lack of data.

Product:

Remarks : Causes sensitisation.

Components:

Hexamethylene-di-isocyanate, polymer:

Result : Probability or evidence of skin sensitisation in humans

Germ cell mutagenicity

Not classified based on available information.
Not classified due to lack of data.

Components:

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:

Germ cell mutagenicity- Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

Carcinogenicity

Not classified based on available information.
Not classified due to lack of data.

Components:

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:

Carcinogenicity - Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

Reproductive toxicity

Not classified based on available information.
Not classified due to lack of data.

STOT - single exposure

May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause respiratory irritation.
May cause drowsiness or dizziness.

Components:

Hexamethylene-di-isocyanate, polymer:

Assessment : May cause respiratory irritation.

n-butyl acetate:

Assessment : May cause drowsiness or dizziness.

isobutyl acetate:

Assessment : May cause drowsiness or dizziness.

reaction mixture of ethylbenzene, m-xylene and p-xylene:

Assessment : May cause respiratory irritation.

2-methoxy-1-methylethyl acetate:

Assessment : May cause drowsiness or dizziness.

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:

Assessment : May cause drowsiness or dizziness.

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.
Not classified due to lack of data.

Components:

reaction mixture of ethylbenzene, m-xylene and p-xylene:

Assessment : May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.
Not classified due to lack of data.

Components:

reaction mixture of ethylbenzene, m-xylene and p-xylene:
May be fatal if swallowed and enters airways.

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:
May be fatal if swallowed and enters airways.

Further information

Product:

Remarks	:	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

n-butyl acetate:

Toxicity to algae/aquatic plants	:	NOEC (Desmodesmus subspicatus (green algae)): > 200 mg/l EC50 (Desmodesmus subspicatus (green algae)): >= 647.7 mg/l Exposure time: 72 h
Toxicity to microorganisms	:	IC50 (Tetrahymena pyriformis): 356 mg/l Exposure time: 40 h

reaction mixture of ethylbenzene, m-xylene and p-xylene:

Toxicity to fish	:	LC50 (Fish): >= 1 - 10 mg/l
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia (water flea)): >= 1 - 10 mg/l
Toxicity to microorganisms	:	EC50 (Bacteria): >= 1 - 100 mg/l

2-methoxy-1-methylethyl acetate:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 130 mg/l Exposure time: 96 h NOEC : 100 mg/l Exposure time: 96 h
Toxicity to daphnia and other	:	LC50 : 408 mg/l

aquatic invertebrates		Exposure time: 48 h
Toxicity to fish (Chronic toxicity)	:	EC10: 47.5 mg/l

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:

Toxicity to fish	:	LC50 (Fish): > 1 - 10 mg/l
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia (water flea)): > 1 - 10 mg/l
Toxicity to microorganisms	:	EC50 (Bacteria): > 1 - 10 mg/l

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Components:

n-butyl acetate:

Biodegradability	:	Result: Biodegradable Biodegradation: 83 % Exposure time: 28 d Method: OECD Test Guideline 301D
Stability in water	:	Degradation half life: 78 d pH: 8 Hydrolyses slowly.
Photodegradation	:	Decomposes rapidly in contact with light.

reaction mixture of ethylbenzene, m-xylene and p-xylene:

Biodegradability	:	Readily biodegradable.
Photodegradation	:	Decomposes rapidly in contact with light.

2-methoxy-1-methylethyl acetate:

Biodegradability	:	Readily biodegradable.

12.3 Bioaccumulative potential

Components:

n-butyl acetate:

Bioaccumulation	:	Bioconcentration factor (BCF): 15 Bioaccumulation is unlikely.
Partition coefficient: n-octanol/water	:	log Pow: 1.81

isobutyl acetate:

Partition coefficient: n-octanol/water : log Pow: 1.72

reaction mixture of ethylbenzene, m-xylene and p-xylene:

Bioaccumulation : Bioconcentration factor (BCF): 25.9
Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 2.77 - 3.15

2-methoxy-1-methylethyl acetate:

Partition coefficient: n-octanol/water : log Pow: 1.2 (20 °C)
pH: 6.8

12.4 Mobility in soil

Components:

reaction mixture of ethylbenzene, m-xylene and p-xylene:

Distribution among environmental compartments : Koc: 537, log Koc: 2.73
Moderately mobile in soils
The product evaporates from soil.

Stability in soil : Dissipation time: 23 d
Percentage dissipation: 50 % (DT50)

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.

		Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADN	:	UN 1263
ADR	:	UN 1263
RID	:	UN 1263
IMDG	:	UN 1263
IATA	:	UN 1263

14.2 UN proper shipping name

ADN	:	PAINT
ADR	:	PAINT
RID	:	PAINT
IMDG	:	PAINT
IATA	:	Paint

14.3 Transport hazard class(es)

		Class	Subsidiary risks
ADN	:	3	
ADR	:	3	
RID	:	3	
IMDG	:	3	
IATA	:	3	

14.4 Packing group

ADN

Packing group	:	III
Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3

ADR

Packing group	:	III
Classification Code	:	F1

Hazard Identification Number	:	30
Labels	:	3
Tunnel restriction code	:	(D/E)

RID

Packing group	:	III
Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3

IMDG

Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E

IATA (Cargo)

Packing instruction (cargo aircraft)	:	366
Packing instruction (LQ)	:	Y344
Packing group	:	III
Labels	:	Flammable Liquids

IATA (Passenger)

Packing instruction (passenger aircraft)	:	355
Packing instruction (LQ)	:	Y344
Packing group	:	III
Labels	:	Flammable Liquids

14.5 Environmental hazards

ADN

Environmentally hazardous	:	no

ADR

Environmentally hazardous	:	no

RID

Environmentally hazardous	:	no

IMDG

Marine pollutant	:	no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of H-Statements

H225	:	Highly flammable liquid and vapour.
H226	:	Flammable liquid and vapour.
H304	:	May be fatal if swallowed and enters airways.
H312	:	Harmful in contact with skin.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H319	:	Causes serious eye irritation.
H332	:	Harmful if inhaled.
H335	:	May cause respiratory irritation.
H336	:	May cause drowsiness or dizziness.
H373	:	May cause damage to organs through prolonged or repeated exposure.
H411	:	Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Asp. Tox.	:	Aspiration hazard
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
2019/1831/EU	:	Europe. Commission Directive 2019/1831/EU establishing a fifth list of indicative occupational exposure limit values
ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
IL BEI	:	Israel. Safety at Work Regulations - Annex III Biological Exposure Indices
IL OEL	:	Israel. Safety at Work Regulations (Environmental monitoring and biological monitoring of workers)
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL	:	Short term exposure limit
2019/1831/EU / TWA	:	Limit Value - eight hours

2019/1831/EU / STEL	:	Short term exposure limit
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
IL OEL / TLV-TWA	:	Threshold Limit Value - Time Weighted (TLV-TWA)
IL OEL / TLV-STEL	:	Threshold Limit Value - Short Term (TLV-STEL)
IL OEL / TLV-C	:	Threshold Limit Value - Ceiling (TLV-C)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:		**Classification procedure:**
Flam. Liq. 3	H226	Based on product data or assessment
Skin Sens. 1	H317	Calculation method
STOT SE 3	H336	Calculation method
STOT SE 3	H335	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.