MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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: Coatings and paints, thinners, paint removers

stance/Mixture

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.

H336: May cause drowsiness or dizziness.

Specific target organ toxicity - single exposure, Category 3, Central nervous

svstem

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)

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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 protec-

tion/ face protection/ hearing protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immedi-

ately 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.	Classification	Concentration
	EC-No.		(% w/w)

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

	T	T	
	Index-No.		
	Registration number		
Hexamethylene diisocyanate, oligo-	28182-81-2	Acute Tox. 4; H332	>= 30 - < 50
mers		Skin Sens. 1; H317	
	500-060-2	STOT SE 3; H335	
	01-2119485796-17	(Respiratory sys-	
		tem)	
n-butyl acetate	123-86-4	Flam. Liq. 3; H226	>= 20 - < 30
		STOT SE 3; H336	
	204-658-1	(Central nervous	
	607-025-00-1	system)	
	01-2119485493-29		
	110.10.0	FI 1: 0 11005	4 40
isobutyl acetate	110-19-0	Flam. Liq. 2; H225 STOT SE 3; H336	>= 1 - < 10
	203-745-1		
	607-026-00-7	(Central nervous	
		system)	
	01-2119488971-22		
reaction mixture of ethylbenzene, m-	-	Flam. Liq. 3; H226	>= 1 - < 10
xylene and p-xylene		Acute Tox. 4; H332	
, , ,	905-562-9	Acute Tox. 4; H312	
	01-2119555267-33	Skin Irrit. 2; H315	
	0. 26666267 66	Eye Irrit. 2; H319	
		STOT SE 3; H335	
		(Respiratory sys-	
		tem)	
		STOT RE 2; H373	
		Asp. Tox. 1; H304	
2-methoxy-1-methylethyl acetate	108-65-6	Flam. Liq. 3; H226	>= 1 - < 10
		STOT SE 3; H336	
	203-603-9	(Central nervous	
	607-195-00-7	system)	
	01-2119475791-29		
	2. 2 3 . 7 3 7 3 7 2 3		
solvent naphtha (petroleum), light	64742-95-6	Flam. Liq. 3; H226	>= 1 - < 2.5
aromatic		STOT SE 3; H336	
	265-199-0	(Central nervous	
	649-356-00-4	system)	
	01-2119455851-35	STOT SE 3; H335	
		(Respiratory sys-	
		tem)	
		Asp. Tox. 1; H304	
		Aquatic Chronic 2;	
		H411	
	l	1	

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.

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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.

Flush eyes with water as a precaution. In case of eye contact

> 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.

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.

ucts

Hazardous combustion prod- : No hazardous combustion products are known

5.3 Advice for firefighters

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

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

for firefighters

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 sepa-

rately 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 concentra-

tions. 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 ab-

sorbent 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 ap-

plication 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.

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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.

When using do not eat or drink. When using do not smoke. Hygiene measures

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 wellventilated 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 stor-

age 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 sub-

stance/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/E U
	Further inform	nation: Indicative		
		TWA	50 ppm 241 mg/m3	2019/1831/E U
	Further inform	nation: Indicative		
		TWA	50 ppm	ACGIH
		STEL	150 ppm	ACGIH
isobutyl acetate	110-19-0	TWA	50 ppm 241 mg/m3	2019/1831/E U
	Further information: Indicative			

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

		STEL	150 ppm 723 mg/m3	2019/1831/E U
	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 inforn skin, Indicativ		possibility of significant upta	ke through the
		STEL	100 ppm 442 mg/m3	2000/39/EC
	Further inforn skin, Indicativ		possibility of significant upta	ke through the
		TWA	20 ppm	ACGIH
2-methoxy-1- methylethyl ace- tate	108-65-6	STEL	100 ppm 550 mg/m3	2000/39/EC
	Further inforn skin, Indicativ		possibility of significant upta	ke through the
		TWA	50 ppm 275 mg/m3	2000/39/EC
	Further inform skin, Indicativ		possibility of significant upta	ke through the

Biological occupational exposure limits

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

Derived No Effect Level (DNEL)

according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health ef-	Value
			fects	
Hexamethylene-di-	Workers	Inhalation	Long-term local ef-	0.5 mg/m3
isocyanate, polymer			fects	
	Workers	Inhalation	Long-term systemic	1 mg/m3
			effects	
n-butyl acetate	Workers	Inhalation	Acute systemic ef-	600 mg/m3
			fects	
	Workers	Inhalation	Acute local effects	600 mg/m3
	Workers	Inhalation	Long-term systemic	48 mg/m3

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

	I		effects	
	Workers	Inhalation	Long-term local ef- fects	300 mg/m3
	Consumers	Inhalation	Acute systemic ef- fects	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 ef- fects	35.7 mg/m3
	Consumers	Dermal	Long-term systemic effects	3.4 mg/kg bw/day
	Consumers	Dermal	Acute systemic ef- fects	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 ef- fects	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 ef- fects	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 ef- fects	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

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

	Workers	Inhalation	Acute local effects	289 mg/m3
	Consumers	Inhalation	Acute systemic effects	260 mg/m3
	Workers	Inhalation	Long-term local ef- fects	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
in grand grand control	Workers	Inhalation	Acute local effects	550 mg/m3
	Consumers	Inhalation	Long-term systemic effects	33 mg/m3
	Consumers	Inhalation	Long-term local ef- fects	33 mg/m3
	Workers	Dermal	Long-term systemic effects	796 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	320 mg/kg 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
7, -, -	Workers	Inhalation	Long-term local ef- fects	610 mg/m3
	Consumers	Inhalation	Long-term systemic effects	72.6 mg/m3
	Consumers	Inhalation	Long-term local ef- fects	72.6 mg/m3
	Workers	Dermal	Long-term local ef- fects	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

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023 IL/EN

Consumers Oral Long-term systemic 11 mg/kg effects bw/day

Predicted No Effect Concentration (PNEC)

according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Hexamethylene-di-isocyanate,	Soil	505 mg/kg dry
polymer		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,	Soil	2.31 mg/kg dry
m-xylene and p-xylene		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.)

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

	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 : Nitrile rubber (> 0,1 mm; < 60 min); DIN EN374

butyl-rubber (> 0,6 mm; < 240 min); DIN EN374 | Viton® (> 0,6 mm; < 240 min); DIN EN374 | PE laminate (> 0,1 mm; < 240 min); DIN EN374 |

Remarks : 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 concen-

tration of the dangerous substance at the work place.

Respiratory protection : Use respiratory protection unless adequate local exhaust ven-

tilation 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))

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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, high-

est 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 compo-

nents, highest value))

Auto-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 condi-

tions.

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

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

9.2 Other information

No data available

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

Adequate ventilation is required.

Heating can release vapours which can be ignited.

Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

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:

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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.

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.

Product:

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

and the skin.

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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.

Respiratory sensitisation

Not classified based on available information.

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.

Components:

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

Germ cell mutagenicity- As- : Classified based on benzene content < 0.1% (Regulation (EC)

sessment 1272/2008, Annex VI, Part 3, Note P)

Carcinogenicity

Not classified based on available information.

Components:

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

Carcinogenicity - Assess- : Classified based on benzene content < 0.1% (Regulation (EC)

ment 1272/2008, Annex VI, Part 3, Note P)

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause respiratory irritation. May cause drowsiness or dizziness.

Components:

Hexamethylene-di-isocyanate, polymer:

Assessment : May cause respiratory irritation.

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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.

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.

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.

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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 :

LC50 (Daphnia (water flea)): >= 1 - 10 mg/l

aquatic invertebrates

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 :

aquatic invertebrates

LC50: 408 mg/l

Exposure time: 48 h

Toxicity to fish (Chronic tox-

icity)

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:

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

Biodegradability : Result: Biodegradable

Biodegradation: 83 % Exposure time: 28 d

Method: OECD Test Guideline 301D

Stability in water : Degradation half life: 78 d

pH: 8

Remarks: Hydrolyses slowly.

Photodegradation : Remarks: Decomposes rapidly in contact with light.

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

Biodegradability : Remarks: Readily biodegradable.

Photodegradation : Remarks: Decomposes rapidly in contact with light.

2-methoxy-1-methylethyl acetate:

Biodegradability : Remarks: Readily biodegradable.

12.3 Bioaccumulative potential

Components:

n-butyl acetate:

Bioaccumulation : Bioconcentration factor (BCF): 15

Remarks: 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

Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-

octanol/water

log Pow: 2.77 - 3.15

2-methoxy-1-methylethyl acetate:

Partition coefficient: n- : log Pow: 1.2 (20 °C)

octanol/water pH: 6.8

12.4 Mobility in soil

Components:

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

Distribution among environ: Koc: 537, log Koc: 2.73

mental compartments Remarks: Moderately mobile in soils

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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 poten-

tial

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 infor-

mation

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 chemi-

cal 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

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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

14.3 Transport hazard class(es)

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, <u>S-E</u>

IATA (Cargo)

Packing instruction (cargo : 366

aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Flammable Liquids

IATA (Passenger)

Packing instruction (passen: 355

ger aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Flammable Liquids

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

14.5 Environmental hazards

ADN

Environmentally hazardous : no

ADR

Environmentally hazardous : no

1

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

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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 Expo-

sure 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 -

MOBIHEL 2K hardener 1500



Version Revision Date: SDS Number: Date of last issue: -

1.0 28.11.2023 MAT000416727 Date of first issue: 28.11.2023

IL/EN

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

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