

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	28.11.2023	MAT000419583 JO/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 HS HARDENER 4100

Product code : 41958313

#### 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

Emergency telephone number: 911

---

### 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.

Long-term (chronic) aquatic hazard, Cat- H412: Harmful to aquatic life with long lasting ef-

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version  
1.0

Revision Date:  
28.11.2023

SDS Number:  
MAT000419583  
JO/EN

Date of last issue: -  
Date of first issue: 28.11.2023

Category 3

Effects.

### 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.  
H412 Harmful to aquatic life with long lasting effects.

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.  
P273 Avoid release to the environment.  
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.  
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  
Hydrocarbons, C9 aromatics  
hexamethylene-di-isocyanate

### 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

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version  
1.0

Revision Date:  
28.11.2023

SDS Number:  
MAT000419583  
JO/EN

Date of last issue: -  
Date of first issue: 28.11.2023

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)	>= 50 - < 70
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)	>= 10 - < 20
Hydrocarbons, C9 aromatics	-  918-668-5 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	>= 10 - < 20
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	-  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
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	>= 2.5 - < 10
hexamethylene diisocyanate	822-06-0  212-485-8	Acute Tox. 4; H302 Acute Tox. 2; H330 Skin Irrit. 2; H315	< 0.1

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version 1.0      Revision Date: 28.11.2023      SDS Number: MAT000419583  
JO/EN      Date of last issue: -      Date of first issue: 28.11.2023

	615-011-00-1 01-2119457571-37	Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory sys- tem)	
--	----------------------------------	--	--

### 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.

#### 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 (CO<sub>2</sub>)

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	28.11.2023	MAT000419583 JO/EN	Date of first issue: 28.11.2023

---

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.

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	28.11.2023	MAT000419583 JO/EN	Date of first issue: 28.11.2023

---

### 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 conditions : Protect from moisture.
- 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.

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version  
1.0

Revision Date:  
28.11.2023

SDS Number:  
MAT000419583  
JO/EN

Date of last issue: -  
Date of first issue: 28.11.2023

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
n-butyl acetate	123-86-4	STEL	150 ppm 723 mg/m <sup>3</sup>	2019/1831/E U
		TWA	50 ppm 241 mg/m <sup>3</sup>	2019/1831/E U
isobutyl acetate	110-19-0	TWA	50 ppm 241 mg/m <sup>3</sup>	2019/1831/E U
		STEL	150 ppm 723 mg/m <sup>3</sup>	2019/1831/E U
reaction mixture of ethylbenzene, m-xylene and p-xylene	1330-20-7	TWA	50 ppm 221 mg/m <sup>3</sup>	2000/39/EC
		STEL	100 ppm 442 mg/m <sup>3</sup>	2000/39/EC

##### Derived No Effect Level (DNEL)

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Hexamethylene-diisocyanate, polymer	Workers	Inhalation	Long-term local effects	0.5 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	1 mg/m <sup>3</sup>
n-butyl acetate	Workers	Inhalation	Acute systemic effects	600 mg/m <sup>3</sup>
	Workers	Inhalation	Acute local effects	600 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	48 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	300 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute systemic effects	300 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute local effects	300 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term systemic effects	12 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	35.7 mg/m <sup>3</sup>
	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

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version  
1.0

Revision Date:  
28.11.2023

SDS Number:  
MAT000419583  
JO/EN

Date of last issue: -  
Date of first issue: 28.11.2023

	Workers	Dermal	Long-term systemic effects	7 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	11 mg/kg bw/day
Hydrocarbons, C9 aromatics	Workers	Inhalation	Long-term systemic effects	150 mg/m3
	Workers	Oral	Long-term systemic effects	150 mg/m3
	Consumers	Inhalation	Long-term exposure	32 mg/m3
	Workers	Dermal	Long-term systemic effects	25 mg/kg bw/day
	Consumers	Dermal	Long-term 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



# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version  
1.0

Revision Date:  
28.11.2023

SDS Number:  
MAT000419583  
JO/EN

Date of last issue: -  
Date of first issue: 28.11.2023

	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
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
hexamethylene-di-isocyanate	Workers	Inhalation	Long-term systemic effects	0.035 mg/m3
	Workers	Inhalation	Acute systemic effects	0.07 mg/m3
	Workers	Inhalation	Long-term local effects	0.035 mg/m3
	Workers	Inhalation	Acute local effects	0.07 mg/m3

### 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
n-butyl acetate	Intermittent use/release	1 mg/l
	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.)
isobutyl acetate	Sewage treatment plant	35.6 mg/l
	Intermittent use/release	0.36 mg/l
	Soil	0.0755 mg/kg dry weight (d.w.)
	Marine water	0.017 mg/l

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version  
1.0

Revision Date:  
28.11.2023

SDS Number:  
MAT000419583  
JO/EN

Date of last issue: -  
Date of first issue: 28.11.2023

	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
hexamethylene-di-isocyanate	Soil	0.0026 mg/kg dry weight (d.w.)
	Marine water	0.00774 mg/l
	Fresh water	0.0774 mg/l
	Marine sediment	0.001344 mg/kg dry weight (d.w.)
	Fresh water sediment	0.01334 mg/kg dry weight (d.w.)
	Sewage treatment plant	8.42 mg/l
	Intermittent use/release	0.774 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 : 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.

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	28.11.2023	MAT000419583 JO/EN	Date of first issue: 28.11.2023

---

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	: 28 °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 (calculation method (principal components, highest value))
Relative density	: No data available
Density	: 1.01 g/cm <sup>3</sup>
Solubility(ies)	
Water solubility	: partly miscible
Solubility in other solvents	: Description: miscible with most organic solvents

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	28.11.2023	MAT000419583 JO/EN	Date of first issue: 28.11.2023

---

Partition coefficient: n-octanol/water : log Pow: < 4 (calculation method (principal components, highest value))

Auto-ignition temperature : 423 °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 mm<sup>2</sup>/s (40 °C)

Explosive properties : Not applicable

Oxidizing properties : Sustains combustion

### 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).

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version  
1.0

Revision Date:  
28.11.2023

SDS Number:  
MAT000419583  
JO/EN

Date of last issue: -  
Date of first issue: 28.11.2023

---

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

Not classified based on available information.

##### Product:

Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity

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

##### **Hydrocarbons, C9 aromatics:**

Acute dermal toxicity : LD50 (Rabbit): > 3,160 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 with skin.

##### **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

##### **hexamethylene-di-isocyanate:**

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version 1.0      Revision Date: 28.11.2023      SDS Number: MAT000419583  
JO/EN      Date of last issue: -      Date of first issue: 28.11.2023

---

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

### **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.

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

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version 1.0      Revision Date: 28.11.2023      SDS Number: MAT000419583  
JO/EN      Date of last issue: -      Date of first issue: 28.11.2023

---

### **Carcinogenicity**

Not classified based on available information.

### **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.

### **STOT - single exposure**

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.

#### **Hydrocarbons, C9 aromatics:**

Assessment : May cause drowsiness or dizziness.

Assessment : May cause respiratory irritation.

#### **isobutyl acetate:**

Assessment : May cause drowsiness or dizziness.

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

Assessment : May cause respiratory irritation.

#### **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.

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version 1.0      Revision Date: 28.11.2023      SDS Number: MAT000419583  
JO/EN      Date of last issue: -      Date of first issue: 28.11.2023

---

### Aspiration toxicity

Not classified based on available information.

### Components:

#### Hydrocarbons, C9 aromatics:

May be fatal if swallowed and enters airways.

#### 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

##### Hydrocarbons, C9 aromatics:

Toxicity to fish : LC50 (Fish): >= 9.2 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): >= 3.2 mg/l  
Exposure time: 48 h

#### Ecotoxicology Assessment

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

---



# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version 1.0      Revision Date: 28.11.2023      SDS Number: MAT000419583  
JO/EN      Date of last issue: -      Date of first issue: 28.11.2023

---

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

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

## **12.3 Bioaccumulative potential**

### **Components:**

#### **n-butyl acetate:**

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

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	28.11.2023	MAT000419583 JO/EN	Date of first issue: 28.11.2023

---

octanol/water

### Hydrocarbons, C9 aromatics:

Partition coefficient: n-  
octanol/water : log Pow: < 4

### 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

## 12.4 Mobility in soil

### Components:

#### Hydrocarbons, C9 aromatics:

Mobility : Medium: Air  
Content: 92.9 %  
: Medium: Water  
Content: 3.5 %  
: Medium: Soil  
Content: 1.9 %  
: Medium: Sediment  
Content: 1.8 %

Distribution among environ-  
mental compartments : Koc: 1.71 - 14.70  
Remarks: Mobile in soils

Remarks: The product is insoluble and floats on water.

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

Distribution among environ-  
mental compartments : Koc: 537, log Koc: 2.73  
Remarks: 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:

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	28.11.2023	MAT000419583 JO/EN	Date of first issue: 28.11.2023

---

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 : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Harmful to aquatic life with long lasting effects.

---

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
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

---

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version 1.0  
Revision Date: 28.11.2023  
SDS Number: MAT000419583  
JO/EN

Date of last issue: -  
Date of first issue: 28.11.2023

**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, 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

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	28.11.2023	MAT000419583 JO/EN	Date of first issue: 28.11.2023

---

### 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.
H302	: Harmful if swallowed.
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.
H330	: Fatal 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.
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

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version 1.0      Revision Date: 28.11.2023      SDS Number: MAT000419583  
JO/EN      Date of last issue: -      Date of first issue: 28.11.2023

Flam. Liq. : Flammable liquids  
Resp. Sens. : Respiratory sensitisation  
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  
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

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:

Flam. Liq. 3      H226  
Skin Sens. 1      H317

#### Classification procedure:

Based on product data or assessment  
Calculation method

# SAFETY DATA SHEET

## MOBIHEL 2K HS HARDENER 4100



Version 1.0	Revision Date: 28.11.2023	SDS Number: MAT000419583 JO/EN	Date of last issue: - Date of first issue: 28.11.2023
----------------	------------------------------	--------------------------------------	--

---

STOT SE 3	H336	Calculation method
STOT SE 3	H335	Calculation method
Aquatic Chronic 3	H412	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.

JO / EN