according to Regulation (EC) No. 1907/2006

MOBIHEL 2K hardener 1100



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

1.1 Product identifier

Product code : 41672261

Trade name : MOBIHEL 2K hardener 1100

Unique Formula Identifier

(UFI)

: HDK0-X06P-K00C-DTM1

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

Use of the Sub-: PC9a Coatings and paints, thinners, paint removers

stance/Mixture

on use

Recommended restrictions : Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

: Helios TBLUS d.o.o. Company

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

Call 999 for emergency medical attention

professionals only: National Poison Information Service (NPIS) 24h national number 0844 892

0111

consumer: National Health Service (NHS) 24h national number, England & Scotland 111

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.

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Acute toxicity, Category 4 H332: Harmful if inhaled.

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

Long-term (chronic) aquatic hazard, Cat-

egory 3

H335: May cause respiratory irritation.

H412: Harmful to aquatic life with long lasting 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.

H332 Harmful if inhaled.

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 dust/ fume/ gas/ mist/ vapours/ spray.

P273 Avoid release to the environment.

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.

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

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2-butoxyethyl acetate Hydrocarbons, C9 aromatics

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.

Ecological information: 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.

Toxicological information: 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.

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-di-isocyanate, polymer	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) EUH066	>= 20 - < 30
2-butoxyethyl acetate	112-07-2 203-933-3 607-038-00-2 01-2119475112-47	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312	>= 10 - < 20
Hydrocarbons, C9 aromatics	- 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

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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 arom.; Low boiling point naphtha - unspecified	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

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.

Harmful if inhaled.

May cause respiratory irritation.

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May cause drowsiness or dizziness.

Repeated exposure may cause skin dryness or cracking.

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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

for firefighters

Special protective equipment : 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 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

Use personal protective equipment. Personal precautions

> 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.

according to Regulation (EC) No. 1907/2006

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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 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.

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 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.

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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	Control parameters	Basis
		of exposure)		
Hexamethylene-di-	28182-81-2	TWA	0,02 mg/m3	GB EH40
isocyanate, poly-			(NCO)	
mer				
	Further inform	nation: Capable of ca	using occupational asthma.	
		STEL	0,07 mg/m3	GB EH40
			(NCO)	
	Further inform	nation: Capable of ca	using occupational asthma.	
n-butyl acetate	123-86-4	TWA	150 ppm	GB EH40
			724 mg/m3	
		STEL	200 ppm	GB EH40
			966 mg/m3	
		STEL	150 ppm	2019/1831/E
			723 mg/m3	U
	Further inform	Further information: Indicative		
		TWA	50 ppm	2019/1831/E
			241 mg/m3	U
	Further inform	ation: Indicative	•	
2-butoxyethyl ace-	112-07-2	TWA	20 ppm	2000/39/EC
tate			133 mg/m3	
	Further information: Identifies the possibility of significant uptake through the			
	skin, Indicativ			
		STEL	50 ppm	2000/39/EC
			333 mg/m3	
	Further inform	ation: Identifies the	possibility of significant uptak	e through the
	skin, Indicativ			
		TWA	20 ppm	GB EH40
			133 mg/m3	
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will			
	lead to systemic toxicity.			
		STEL	50 ppm	GB EH40
			332 mg/m3	
	Further inform	nation: Can be absor	bed through the skin. The as	signed sub-
	stances are th	ose for which there	are concerns that dermal abs	sorption will

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	lead to system	nic toxicity.		
reaction mixture of ethylbenzene, m- xylene and p- xylene	1330-20-7	TWA	50 ppm 221 mg/m3	2000/39/EC
	Further inform skin, Indicative		possibility of significant uptak	ce through the
		STEL	100 ppm 442 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	50 ppm 220 mg/m3	GB EH40
	Further information: Can be absorbed through the skin. The assigned sub-			
	stances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	100 ppm 441 mg/m3	GB EH40
		ose for which there	bed through the skin. The as are concerns that dermal ab	

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
Hexamethylene-di- isocyanate, polymer	28182-81-2	isocyanate-derived diamine (Isocya- nates): 1 µmol/mol creatinine (Urine)	At the end of the period of exposure	GB EH40 BAT
reaction mixture of ethylbenzene, m-xylene and p-xylene	1330-20-7	methyl hippuric acid: 650 Millimo- les per mole Creat- inine (Urine)	After shift	GB EH40 BAT

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 ef- fects	0,5 mg/m3
	Workers	Inhalation	Long-term systemic effects	1 mg/m3
n-butyl acetate	Workers	Inhalation	Acute systemic ef- fects	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 ef- fects	300 mg/m3
	Consumers	Inhalation	Acute systemic ef- fects	300 mg/m3
	Consumers	Inhalation	Acute local effects	300 mg/m3

according to Regulation (EC) No. 1907/2006



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Consumers Inhalation Long-term systemic 12 mg/m3 effects Consumers Inhalation Long-term local ef-35,7 mg/m3 fects Consumers Dermal Long-term systemic 3,4 mg/kg effects bw/day Dermal Acute systemic ef-6 mg/kg Consumers bw/day fects Consumers Oral Long-term systemic 2 mg/kg effects bw/day Acute systemic ef-2 mg/kg Consumers Oral bw/day fects Workers Long-term systemic 7 mg/kg Dermal effects bw/day Workers Acute systemic ef-11 mg/kg Dermal fects bw/day 333 mg/m3 2-butoxyethyl acetate Workers Inhalation Long-term systemic effects Consumers Oral Long-term systemic 86 mg/kg effects bw/day Long-term systemic 169 mg/kg Workers Dermal bw/day effects 120 mg/kg Workers Dermal Acute systemic effects bw/day Consumers Dermal Long-term systemic 102 mg/kg bw/day effects Consumers Dermal Acute systemic ef-72 mg/kg bw/day fects Acute systemic ef-Consumers Oral 36 mg/kg fects bw/day Hydrocarbons, C9 Workers Inhalation Long-term systemic 150 mg/m3 aromatics effects Workers Oral Long-term systemic 150 mg/m3 effects 32 mg/m3 Consumers Inhalation Long-term exposure Workers Long-term systemic 25 ma/ka Dermal effects bw/day 11 mg/kg Consumers Dermal Long-term systemic effects bw/day reaction mixture of Workers Long-term systemic 77 mg/m3 Inhalation ethylbenzene, meffects xylene and p-xylene Long-term local ef-65,3 mg/m3 Consumers Inhalation fects Workers Inhalation Acute systemic ef-442 mg/m3

Inhalation

Inhalation

Inhalation

Inhalation

Workers

Workers

Consumers

Consumers

fects

fects

fects

Acute local effects

Acute systemic ef-

Long-term local ef-

Long-term systemic

289 mg/m3

260 mg/m3

221 mg/m3

14,8 mg/m3

according to Regulation (EC) No. 1907/2006



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			effects	
	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
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,	Soil	53182 mg/kg dry
polymer		weight (d.w.)
	Marine water	0,0127 mg/l
	Fresh water	0,127 mg/l
	Marine sediment	26670 mg/kg dry
		weight (d.w.)
	Fresh water sediment	266670 mg/kg
		dry weight (d.w.)
	Sewage treatment plant	38,3 mg/l
	Intermittent use/release	1,27 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
2-butoxyethyl acetate	Soil	0,415 mg/kg dry
		weight (d.w.)
	Marine water	0,0304 mg/l
	Fresh water	0,304 mg/l
	Marine sediment	0,203 mg/kg dry
		weight (d.w.)
	Fresh water sediment	2,03 mg/kg dry
		weight (d.w.)
	Sewage treatment plant	90 mg/l

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	Intermittent use/release	0,56 mg/l
3-methoxybutyl acetate	Soil	0,00397 mg/kg
		dry weight (d.w.)
	Marine water	0,00071 mg/l
	Fresh water	0,0071 mg/l
	Marine sediment	0,0041 mg/kg dry
		weight (d.w.)
	Fresh water sediment	0,041 mg/kg dry
		weight (d.w.)
	Sewage treatment plant	1 mg/l
	Intermittent use/release	0,071 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

8.2 Exposure controls

Personal protective equipment

Eye 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); 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 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.

Equipment should conform to EN 14387

Filter type : Organic vapour type (A)

according to Regulation (EC) No. 1907/2006

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

Colour : colourless

Odour : solvent-like

Odour Threshold : No data available

Melting point/freezing point : -80,0 °C

(calculation method (principal components, lowest value))

Boiling point/boiling range : 126 °C (calculation method (principal components, lowest

value))

Flammability : Static-accumulating flammable liquid., Combustible Solids

Upper explosion limit / Upper

flammability limit

8,4 %(V) (calculation method (principal components, highest

value))

Lower explosion limit / Lower

flammability limit

0,8 %(V) (calculation method (principal components, highest

value))

Flash point : 38 °C

Ignition temperature : 280 °C (calculation method (principal components, highest

value))

Decomposition temperature

Decomposition temperature : No decomposition if stored and applied as directed.

Hazardous decomposition products formed under fire condi-

tions.

pH : Not applicable

Viscosity

Viscosity, kinematic : > 20,5 mm2/s (40 °C)

Flow time : 12 s at 20 °C

Cross section: 4 mm Method: DIN 53211

Solubility(ies)

Water solubility : immiscible, partly soluble

Solubility in other solvents : Description: miscible with most organic solvents

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Partition coefficient: n-

octanol/water

: log Pow: < 4 (calculation method (principal components, high-

est value))

Vapour pressure : < 1.100 hPa (calculation method (principal components, high-

est value)) (50 °C)

Relative density : 0,93 (calculation method (principal components, highest val-

ue))

Density : 0,99 g/cm3

Relative vapour density : 5,5 (calculation method (principal components, lowest value))

(Air = 1.0)

9.2 Other information

Explosives : Not applicable

Oxidizing properties : Sustains combustion

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).

according to Regulation (EC) No. 1907/2006

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SECTION 11: Toxicological information

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

Acute toxicity

Harmful if inhaled.

Product:

Acute oral toxicity Acute toxicity estimate: > 2.000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 19,11 mg/l

> Exposure time: 4 h Test atmosphere: vapour Method: Calculation method

: Acute toxicity estimate: > 2.000 mg/kg Acute dermal toxicity

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

: LD50 (Rabbit): >= 5.000 mg/kg Acute dermal toxicity

2-butoxyethyl acetate:

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

single ingestion.

LD50 Oral (Rat): >= 2.400 mg/kg

Acute inhalation toxicity LC50 (Rat): >= 50 mg/l

Exposure time: 2 h

Test atmosphere: vapour

Assessment: The component/mixture is moderately toxic after Acute dermal toxicity

single contact with skin.

LD50 (Rabbit): >= 1.500 mg/kg

Hydrocarbons, C9 aromatics:

Acute dermal toxicity : LD50 (Rabbit): > 3.160 mg/kg

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

according to Regulation (EC) No. 1907/2006



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Acute oral toxicity : LD50 Oral (Rat): >= 8.700 mg/kg

Acute inhalation toxicity : Test atmosphere: vapour

Assessment: The component/mixture is moderately toxic after

short term inhalation.

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

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.

according to Regulation (EC) No. 1907/2006

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Components:

Hexamethylene-di-isocyanate, polymer:

Result : Probability or evidence of skin sensitisation in humans

Germ cell mutagenicity

Not classified based on available information.

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.

n-butyl acetate:

Assessment : May cause drowsiness or dizziness.

Hydrocarbons, C9 aromatics:

Assessment : May cause drowsiness or dizziness.

Assessment : May cause respiratory irritation.

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.

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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:

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.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components consid-

ered 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.

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

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EC50 (Desmodesmus subspicatus (green algae)): >= 647,7

Exposure time: 72 h

IC50 (Tetrahymena pyriformis): 356 mg/l Toxicity to microorganisms

Exposure time: 40 h

2-butoxyethyl acetate:

Toxicity to fish LC50 (Fish): >= 31 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia (water flea)): >= 142,5 mg/l

Exposure time: 48 h

Toxicity to microorganisms EC50 (Bacteria): >= 2.800 mg/l

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.

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

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

Toxicity to fish : LC50 (Fish): > 1 - 10 mg/l

aquatic invertebrates

Toxicity to daphnia and other : 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.

according to Regulation (EC) No. 1907/2006

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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.

2-butoxyethyl acetate:

Biodegradability : Result: Biodegradable

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

Biodegradability : Readily biodegradable.

Photodegradation : Decomposes rapidly in contact with light.

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

2-butoxyethyl acetate:

Partition coefficient: n-

octanol/water

log Pow: 1,51

Hydrocarbons, C9 aromatics:

Partition coefficient: n-

octanol/water

log Pow: < 4

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

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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 Mobile in soils

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 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:

This substance/mixture contains no components considered Assessment

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher...

12.6 Endocrine disrupting properties

Product:

Assessment The substance/mixture does not contain components consid-

> ered 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.

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12.7 Other adverse effects

Product:

Additional ecological infor-

mation

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 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.

Waste Code : 08 00 00, WASTES FROM THE MANUFACTURE,

FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS

(PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS

08 01 00, wastes from MFSU and removal of paint and var-

nish

08 01 11*, waste paint and varnish containing organic sol-

vents or other hazardous substances

 $15\ 00\ 00$, WASTE PACKAGING; ABSORBENTS, WIPING

CLOTHS, FILTER MATERIALS AND PROTECTIVE

CLOTHING NOT OTHERWISE SPECIFIED

15 01 00, packaging (including separately collected municipal

packaging waste)

15 01 10*, packaging containing residues of or contaminated

by hazardous substances

HP3, Flammable HP6, Acute Toxicity HP13, Sensitising

SECTION 14: Transport information

14.1 UN number or ID number

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

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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)

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

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ger aircraft)

Packing instruction (LQ) Y344 Packing group Ш

Labels Flammable Liquids

14.5 Environmental hazards

ADN

Environmentally hazardous no

ADR

Environmentally hazardous no

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 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances,

preparations and articles (Annex XVII)

Conditions of restriction for the following entries should be considered:

Number on list 3

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

Not applicable

REACH - List of substances subject to authorisation

(Annex XIV)

Not applicable

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

Not applicable

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import

of dangerous chemicals

Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the

FLAMMABLE LIQUIDS

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P5c

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control of major-accident hazards involving dangerous substances.

Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the

products referred to in points (a)

to (d)

Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

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Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of H-Statements

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.

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.

EUH066 : Repeated exposure may cause skin dryness or cracking.

Full text of other abbreviations

Acute Tox. : Acute toxicity

Aguatic Chronic : Long-term (chronic) aguatic hazard

Asp. Tox. : Aspiration hazard Eye Irrit. : Eye irritation Flam. Liq. : Flammable liquids

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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

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 BAT : UK. Biological monitoring guidance 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

GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; 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; TRGS -Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Classification procedure:

Flam. Liq. 3 H226 Based on product data or assessment

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Acute	Tox. 4	H332	Calculation method
Skin S	ens. 1	H317	Calculation method
STOT	SE 3	H336	Calculation method
STOT SE 3		H335	Calculation method
Aquation	c Chronic 3	H412	Calculation method

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