according to Regulation (EC) No. 1907/2006

MOBIHEL 2K HS hardener 4100



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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 : 419583

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

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

Instituto Nacional de Toxicología y Ciencias Forenses Servicio de Información Toxicológica + 34

91 562 04 20

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 ex-

posure, Category 3, Central nervous

system

H336: May cause drowsiness or dizziness.

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Specific target organ toxicity - single exposure, Category 3, Respiratory system

H335: May cause respiratory irritation.

Long-term (chronic) aquatic hazard, Cat-

egory 3

H412: Harmful to aquatic life with long lasting ef-

fects.

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 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 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.

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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.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		
Hexamethylene-di-isocyanate,	28182-81-2	Acute Tox. 4; H332	>= 50 - < 70
polymer	500-060-2	Skin Sens. 1; H317	
	01-2119485796-17	STOT SE 3; H335	
		(Respiratory system)	
n-butyl acetate	123-86-4	Flam. Liq. 3; H226	>= 10 - < 20
•	204-658-1	STOT SE 3; H336	
	607-025-00-1	(Central nervous	
	01-2119485493-29	system)	
		EUH066	
Hydrocarbons, C9 aromatics	-	Flam. Liq. 3; H226	>= 10 - < 20
•		STOT SE 3; H336	
	918-668-5	(Central nervous	
	01-2119455851-35	system)	
		STOT SE 3; H335	
		(Respiratory system)	
		Asp. Tox. 1; H304	
		Aquatic Chronic 2;	
		H411	
isobutyl acetate	110-19-0	Flam. Liq. 2; H225	>= 1 - < 10
•	203-745-1	STOT SE 3; H336	
	607-026-00-7	(Central nervous	
	01-2119488971-22	system)	
		EUH066	
		3	
reaction mixture of ethylbenzene,	-	Flam. Liq. 3; H226	>= 1 - < 10
m-xylene and p-xylene		Acute Tox. 4; H332	
, , , , ,	905-562-9	Acute Tox. 4; H312	
	01-2119555267-33	Skin Irrit. 2; H315	
		Eye Irrit. 2; H319	
		STOT SE 3; H335	
		(Respiratory system)	
		STOT RE 2; H373	
		Asp. Tox. 1; H304	

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arom.; Low boiling point naphtha - unspecified	265-199-0 649-356-00-4 01-2119455851-35	STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system) Asp. Tox. 1; H304 Aquatic Chronic 2; H411	
hexamethylene-di-isocyanate	822-06-0 212-485-8 615-011-00-1 01-2119457571-37	Acute Tox. 4; H302 Acute Tox. 2; H330 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system) specific concentration limit Resp. Sens. 1; H334 >= 0,5 % Skin Sens. 1; H317 >= 0,5 %	< 0,1

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.

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.

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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

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

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.

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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.

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

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must comply with the technological safety standards.

Further information on stor-

age conditions

Protect from moisture.

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
n-butyl acetate	123-86-4	VLA-ED	50 ppm 241 mg/m3	ES VLA
		VLA-EC	150 ppm 723 mg/m3	ES VLA
		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		
isobutyl acetate	110-19-0	VLA-ED	50 ppm 241 mg/m3	ES VLA
		TWA	50 ppm 241 mg/m3	2019/1831/E U
	Further inform	nation: Indicative	•	
		STEL	150 ppm 723 mg/m3	2019/1831/E U
	Further inform	nation: Indicative		
		VLA-EC	150 ppm 723 mg/m3	ES VLA
reaction mixture of ethylbenzene, m- xylene and p- xylene	1330-20-7	VLA-ED	50 ppm 221 mg/m3	ES VLA
	Further inform	nation: Skin		•
		VLA-EC	100 ppm 442 mg/m3	ES VLA
	Further inform	nation: Skin		

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		TWA	50 ppm	2000/39/EC
			221 mg/m3	
	Further inform	ation: Identifies the	possibility of significant uptak	te through the
	skin, Indicative	е	-	
		STEL	100 ppm	2000/39/EC
			442 mg/m3	
	Further inform	ation: Identifies the	possibility of significant uptak	e through the
	skin, Indicative			
hexamethylene-di-	822-06-0	VLA-ED	0,005 ppm	ES VLA
isocyanate			0,035 mg/m3	
	Further information: Sensitizer agent			

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
reaction mixture of ethylbenzene, m-xylene and p-xylene	1330-20-7	methylhippuric acids: 1 g/g creati- nine (Urine)	End of workday	ES VLB

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

Substance name	e name			
Substance name	End Ose	Exposure routes		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
			effects	
	Workers	Inhalation	Long-term local ef-	300 mg/m3
			fects	J
	Consumers	Inhalation	Acute systemic ef-	300 mg/m3
			fects	J s s s s s s s s s s s s s s s s s s s
	Consumers	Inhalation	Acute local effects	300 mg/m3
	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
	Consumers	Dermal	Acute systemic ef-	6 mg/kg
			fects	bw/day
	Consumers	Oral	Long-term systemic	2 mg/kg
			effects	bw/day
	Consumers	Oral	Acute systemic ef-	2 mg/kg
			fects	bw/day
	Workers	Dermal	Long-term systemic	7 mg/kg
			effects	bw/day
	Workers	Dermal	Acute systemic ef-	11 mg/kg
			fects	bw/day

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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 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 ef- fects	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 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

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	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 ef- fects	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,	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.)

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	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
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.

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

tilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

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Equipment should conform to EN 14387

Filter type : Organic vapour type (A)

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 : -98,8 °C (calculation method (principal components, lowest

value))

Boiling point/boiling range : 117 °C (calculation method (principal components, lowest

value)

Flammability : 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))

Flash point : 28 °C

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 condi-

tions.

pH : Not applicable

Viscosity

Viscosity, kinematic : $> 20,5 \text{ mm2/s} (40 \degree \text{C})$

Solubility(ies)

Water solubility : partly miscible

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 : No data available

Density : 1,01 g/cm3

Relative vapour density : 4 (calculation method (principal components, lowest value))

9.2 Other information

Explosives : Not applicable

Oxidizing properties : Sustains combustion

VOC : (Directive 2010/75/EU of 24 November 2010 on industrial

emissions (integrated pollution prevention and control))

45,95 %

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).

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SECTION 11: Toxicological information

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

Acute toxicity

Not classified based on available information.

Product:

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

tion 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 withskin.

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.

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

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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.

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.

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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

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.

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

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Hydrolyses slowly.

Photodegradation : Decomposes rapidly in contact with light.

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

Biodegradability : Readily biodegradable.

Photodegradation : Decomposes rapidly in contact with light.

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

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

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 %

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Medium: Sediment Content: 1,8 %

Distribution among environ-

Koc: 1,71 - 14,70 mental compartments Mobile in soils

The product is insoluble and floats on water.

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

Distribution among environ-

Koc: 537, log Koc: 2,73 mental compartments Moderately mobile in soils

The product evaporates from soil.

Stability in soil Dissipation time: 23 d

Percentage dissipation: 50 % (DT50)

12.5 Results of PBT and vPvB assessment

Product:

Assessment This substance/mixture contains no components considered

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

0.1% or higher.

12.6 Endocrine disrupting properties

Product:

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

> 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.

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.

according to Regulation (EC) No. 1907/2006

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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 solvents

or other hazardoussubstances

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 hazardoussubstances

HP3, Flammable 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
IATA : UN 1263

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

Class Subsidiary risks

ADN : 3
ADR : 3
RID : 3

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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

14.5 Environmental hazards

ADN

Environmentally hazardous : no

ADR

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

Marine pollutant : no

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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 mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) Conditions of restriction for the following entries should be considered: Number on list 75, 3

If you intend to use this product as tattoo ink, please contact your vendor.

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

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

REACH - List of substances subject to authorisation

(Annex XIV)

Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

FLAMMABLE LIQUIDS

34 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

P5c

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purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a)

to (d)

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial

emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 45,95 %

Other regulations:

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

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

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 difficul-

ties 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

Aquatic Chronic : Long-term (chronic) aquatic hazard

Asp. Tox. : Aspiration hazard

Eye Irrit. : Eye irritation

Flam. Liq. : Flammable liquids

Resp. Sens. : Respiratory sensitisation

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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

ES VLA : Spain. Environmental Limits for exposure to Chemical agents

- Table 1: Occupational Exposure Values

ES VLB : Occupational Exposure Limits for Chemical Agents in Spain -

Biological Exposure Values

2000/39/EC / TWA: Limit Value - eight hours2000/39/EC / STEL: Short term exposure limit2019/1831/EU / TWA: Limit Value - eight hours2019/1831/EU / STEL: Short term exposure limit

ES VLA / VLA-ED : Environmental Daily Limit Value ES VLA / VLA-EC : Environmental Short Term Value

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; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

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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 Calculation method Aquatic Chronic 3 H412

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