SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

MOBIHEL 2K HARDENER 700 PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 05.09.2023
2.0	19.10.2026	MAT000402166IE/EN	Date of first issue: 05.09.2023

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

1.1 Product identifier

Trade name : MOBIHEL 2K HARDENER 700 PLUS

Product code : 40216601

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

Use of the Sub-stance/Mixture : PC9a: 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 : KANSAI HELIOS Slovenija 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@kansai-helios.si

1.4 Emergency telephone number

01 809 2166 National Poisons Information Centre 01 809 2166

01 809 2566 Healtcare Professionals 01 809 2566

01 809 2566 Healtcare Professionals 01 809 2566

Access code: 13586 +1 760 476 3962

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.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin irritation, Category 2	H315: Causes skin irritation.

Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements :

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist or vapours.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
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
reaction mixture of ethylbenzene, m-xylene and p-xylene
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane
4-isocyanatosulphonyltoluene

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
reaction mixture of ethylbenzene, m-xylene and p-xylene	- 905-562-9 01-2119555267-33, 01-2119488216-32	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 Aquatic Chronic 3; H412	>= 30 - < 50
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8 219-784-2 01-2119513212-58	Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 3 - < 10
xylene	- 905-588-0 601-022-00-9 01-2119539452-40	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)	>= 1 - < 10

		STOT RE 2; H373 Asp. Tox. 1; H304	
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system)	>= 1 - < 10
4-isocyanatosulphonyltoluene	4083-64-1 223-810-8 615-012-00-7 01-2119980050-47	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 STOT SE 3; H335 (Respiratory system) EUH014 specific concentration limit Skin Irrit. 2; H315 >= 5 % STOT SE 3; H335 >= 5 % Eye Irrit. 2; H319 >= 5 %	>= 0.1 - < 1

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
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 : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
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 induce vomiting.
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 : Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Harmful if inhaled.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Harmful if inhaled.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

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

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

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

for firefighters

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored 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.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

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

6.4 Reference to other sections

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.

Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

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

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : For further information, refer to the product technical data sheet.

Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Hexamethylene-diisocyanate, polymer	28182-81-2	STEL	0.02 mg/m3 (NCO)	98/24/EC I
	Further information: Skin, Dermal and respiratory sensitisation, Binding			
		TWA	0.01 mg/m3 (NCO)	98/24/EC I
	Further information: Skin, Dermal and respiratory sensitisation, Binding			
		OELV - 15 min (STEL)	0.07 mg/m3 (NCO)	IE OEL
	Further information: Chemical agents which following exposure may cause			

	sensitisation of the respiratory tract and lead to asthma, rhinitis or extrinsic allergic alveolitis			
		OELV - 8 hrs (TWA)	0.02 mg/m3 (NCO)	IE OEL
	Further information: Chemical agents which following exposure may cause sensitisation of the respiratory tract and lead to asthma, rhinitis or extrinsic allergic alveolitis			
reaction mixture of ethylbenzene, m-xylene and p-xylene	1330-20-7	OELV - 15 min (STEL)	100 ppm 442 mg/m3	IE OEL
	Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body			
		OELV - 8 hrs (TWA)	50 ppm 221 mg/m3	IE OEL
	Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body			
		STEL	100 ppm 442 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	50 ppm 221 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
xylene	1330-20-7	OELV - 15 min (STEL)	100 ppm 442 mg/m3	IE OEL
	Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body			
		OELV - 8 hrs (TWA)	50 ppm 221 mg/m3	IE OEL
	Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body			
		STEL	100 ppm 442 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	50 ppm 221 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
2-methoxy-1-methylethyl acetate	108-65-6	OELV - 15 min (STEL)	100 ppm 550 mg/m3	IE OEL
	Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body			
		OELV - 8 hrs (TWA)	50 ppm 275 mg/m3	IE OEL
	Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body			
		STEL	100 ppm	2000/39/EC

			550 mg/m3	
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	50 ppm 275 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
4-isocyanatosulpho-nyltoluene	4083-64-1	OELV - 15 min (STEL)	0.07 mg/m3 (NCO)	IE OEL
	Further information: Chemical agents which following exposure may cause sensitisation of the respiratory tract and lead to asthma, rhinitis or extrinsic allergic alveolitis			
		OELV - 8 hrs (TWA)	0.02 mg/m3 (NCO)	IE OEL
	Further information: Chemical agents which following exposure may cause sensitisation of the respiratory tract and lead to asthma, rhinitis or extrinsic allergic alveolitis			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Hexamethylene-di-isocyanate, polymer	Workers	Inhalation	Long-term local effects	0.5 mg/m3
	Workers	Inhalation	Long-term systemic effects	1 mg/m3
reaction mixture of ethylbenzene, m-xylene and p-xylene	Workers	Inhalation	Long-term systemic effects	77 mg/m3
	Consumers	Inhalation	Long-term local effects	65.3 mg/m3
	Workers	Inhalation	Acute systemic effects	442 mg/m3
	Workers	Inhalation	Acute local effects	289 mg/m3
	Consumers	Inhalation	Acute systemic effects	260 mg/m3
	Workers	Inhalation	Long-term local effects	221 mg/m3
	Consumers	Inhalation	Long-term systemic effects	14.8 mg/m3
	Consumers	Inhalation	Acute local effects	260 mg/m3
	Consumers	Dermal	Long-term systemic effects	108 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	16 mg/kg bw/day
	Workers	Dermal	Long-term systemic effects	180 mg/kg bw/day
[3-(2,3-epoxypro-poxy)propyl]trimethoxysilane	Workers	Inhalation	Long-term systemic effects	147 mg/m3

	Workers	Dermal	Long-term systemic effects	21 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	12.5 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	12.5 mg/kg bw/day
xylene	Workers	Inhalation	Long-term exposure	221 mg/m3
	Workers	Inhalation	Short-term exposure	442 mg/m3
	Consumers	Inhalation	Long-term exposure	65.3 mg/m3
	Consumers	Inhalation	Short-term exposure	260 mg/m3
	Workers	Dermal	Long-term exposure	3182 mg/kg bw/day
	Consumers	Dermal	Long-term exposure	1872 mg/kg bw/day
	Consumers	Oral	Long-term exposure	12.5 mg/kg bw/day
2-methoxy-1-methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m3
	Workers	Inhalation	Acute local effects	550 mg/m3
	Consumers	Inhalation	Long-term systemic effects	33 mg/m3
	Consumers	Inhalation	Long-term local effects	33 mg/m3
	Workers	Dermal	Long-term systemic effects	796 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	320 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	36 mg/kg bw/day
4-isocyanatosulphonyltoluene	Workers	Inhalation	Long-term systemic effects	3.24 mg/m3
	Consumers	Inhalation	Long-term systemic effects	0.8 mg/m3
	Workers	Dermal	Long-term systemic effects	0.92 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	0.46 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	0.46 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
Hexamethylene-di-isocyanate, polymer	Soil	505 mg/kg dry weight (d.w.)
	Marine water	0.01 mg/l
	Fresh water	0.1 mg/l
	Marine sediment	253 mg/kg dry weight (d.w.)
	Fresh water sediment	2530 mg/kg dry weight (d.w.)

	Sewage treatment plant	100 mg/l
	Intermittent use/release	1 mg/l
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
[3-(2,3-epoxypro-poxy)propyl]trimethoxysilane	Soil	0.14 mg/kg dry weight (d.w.)
	Marine water	0.1 mg/l
	Fresh water	1 mg/l
	Marine sediment	0.36 mg/kg dry weight (d.w.)
	Fresh water sediment	3.6 mg/kg dry weight (d.w.)
	Sewage treatment plant	10 mg/l
	Intermittent use/release	1 mg/l
xylene	Soil	2.41 mg/kg
	Marine water	0.25 mg/l
	Fresh water sediment	14.33 mg/kg
2-methoxy-1-methylethyl acetate	Soil	0.29 mg/kg dry weight (d.w.)
	Marine water	0.0635 mg/l
	Fresh water	0.635 mg/l
	Marine sediment	0.329 mg/kg dry weight (d.w.)
	Fresh water sediment	3.29 mg/kg dry weight (d.w.)
	Sewage treatment plant	100 mg/l
	Intermittent use/release	0.00635 mg/l
4-isocyanatosulphonyltoluene	Soil	0.0168 mg/kg dry weight (d.w.)
	Marine water	0.003 mg/l
	Fresh water	0.03 mg/l
	Marine sediment	0.0172 mg/kg dry weight (d.w.)
	Fresh water sediment	0.172 mg/kg dry weight (d.w.)
	Sewage treatment plant	0.4 mg/l
	Intermittent use/release	0.3 mg/l

8.2 Exposure controls

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection : Equipment should conform to EN 166

Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Gloves	:	Viton® (> 0,6 mm; < 240 min); ISO EN374 PE laminate (> 0,1 mm; < 240 min); ISO 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)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Form	:	liquid
Colour	:	colourless
Odour	:	solvent-like
Odour Threshold	:	No data available
Melting point/freezing point	:	ca. -70 - -28 °C (calculation method (principal components, lowest value))
Boiling point/boiling range	:	138 - 141.4 °C (calculation method (principal components, lowest value))
Flammability	:	Static-accumulating flammable liquid., Combustible Solids
Upper explosion limit / Upper flammability limit	:	7 %(V) (calculation method (principal components, highest value))
Lower explosion limit / Lower flammability limit	:	1.1 %(V) (calculation method (principal components, highest value))

Flash point	:	25 °C (calculation method (principal components, lowest value))
Ignition temperature	:	315 °C (calculation method (principal components, highest value))
Decomposition temperature	:	No decomposition if stored and applied as directed. Hazardous decomposition products formed under fire conditions.
pH	:	Not applicable substance/mixture is non-polar/aprotic
Viscosity		
Viscosity, kinematic	:	> 20.5 mm2/s (40 °C)
Solubility(ies)		
Water solubility	:	immiscible partly soluble
Solubility in other solvents	:	Description: miscible with most organic solvents
Partition coefficient: n-octanol/water	:	log Pow: 2.77 - 3.15 (calculation method (principal components, highest value))
Vapour pressure	:	8.21 hPa (calculation method (principal components, highest value)) (20 °C)
Relative density	:	No data available
Density	:	0.963 g/cm3
Relative vapour density	:	No data available

9.2 Other information

Explosives	:	Not applicable
Oxidizing properties	:	Sustains combustion
VOC	:	(Directive 2010/75/EU of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control))

49.69 %

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

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

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Incompatible with strong acids and bases.

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if inhaled.
Harmful if inhaled.

Product:

Acute inhalation toxicity : Acute toxicity estimate: 13.03 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

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

Components:

Hexamethylene-di-isocyanate, polymer:

Acute oral toxicity : LD50 (Rat, female): > 2,500 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

The test was conducted according to guideline

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

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
The test was conducted according to guideline

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.

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Acute oral toxicity : LD50 (Rat): 8.03625 g/kg
Method: OECD Test Guideline 401
The test was conducted equivalent or similar to guideline

Acute inhalation toxicity : LC50 (Rat): > 5.3 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
The test was conducted equivalent or similar to guideline

Acute dermal toxicity : LD50 (Rabbit, male): 4.25 g/kg
Method: OECD Test Guideline 402
The test was conducted equivalent or similar to guideline

xylene:

Acute oral toxicity : LD50 (Rat, male): 3,523 mg/kg
Method: Regulation (EC) No. 440/2008, Annex, B.1
The test was conducted equivalent or similar to guideline

Acute inhalation toxicity : LC50 (Rat, male): 5922 ppm
Exposure time: 4 h
Test atmosphere: vapour
Method: EPA OPP 81-3
The test was conducted equivalent or similar to guideline

Acute dermal toxicity : LD50 (Rabbit, male): 12,126 mg/kg
No test guideline followed

2-methoxy-1-methylethyl acetate:

Acute oral toxicity	:	LD50 Oral (Rat): > > 2,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 5 mg/l Test atmosphere: vapour LC0 (Rat): 2000 ppm Exposure time: 3 h
Acute dermal toxicity	:	LD50 (Rabbit): > > 2,000 mg/kg

4-isocyanatosulphonyltoluene:

Acute oral toxicity	:	LD50 (Rat): 2,330 mg/kg Method: OECD Test Guideline 401 The test was conducted equivalent or similar to guideline
Acute dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 The test was conducted according to guideline

Skin corrosion/irritation

Causes skin irritation.
Causes skin irritation.

Product:

Remarks	:	Extremely corrosive and destructive to tissue.

Components:

Hexamethylene-di-isocyanate, polymer:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
Remarks	:	The test was conducted according to guideline

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

Result	:	irritating

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
Remarks	:	The test was conducted equivalent or similar to guideline

xylene:

Species	:	Rabbit
Method	:	Regulation (EC) No. 440/2008, Annex, B.4
Result	:	Mild skin irritation

Remarks : The test was conducted equivalent or similar to guideline

2-methoxy-1-methylethyl acetate:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
Remarks : The test was conducted equivalent or similar to guideline

4-isocyanatosulphonyltoluene:

Result : irritating

Serious eye damage/eye irritation

Causes serious eye damage.
Causes serious eye damage.

Product:

Remarks : May cause irreversible eye damage.

Components:

Hexamethylene-di-isocyanate, polymer:

Species : Rabbit
Method : OECD Test Guideline 405
Result : No eye irritation
Remarks : The test was conducted according to guideline

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

Result : Eye irritation

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Result : Corrosive

xylene:

Species : Human
Result : Not applicable
Remarks : No test guideline followed

2-methoxy-1-methylethyl acetate:

Species : Rabbit
Method : OECD Test Guideline 405
Result : No eye irritation
Remarks : The test was conducted equivalent or similar to guideline

4-isocyanatosulphonyltoluene:

Result : Eye irritation

Respiratory or skin sensitisation

Skin sensitisation
May cause an allergic skin reaction.

Skin sensitisation
May cause an allergic skin reaction.

Respiratory sensitisation
Not classified based on available information.

Respiratory sensitisation
Not classified due to lack of data.

Product:

Remarks : Causes sensitisation.

Components:

Hexamethylene-di-isocyanate, polymer:

Result : Probability or evidence of skin sensitisation in humans

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

Assessment : Not classified due to data which are conclusive although insufficient for classification.

Test Type : Local lymph node assay (LLNA)
Exposure routes : Skin contact
Species : Mouse
Method : OECD Test Guideline 429
Result : negative
Remarks : The test was conducted equivalent or similar to guideline

Assessment : Not classified due to data which are conclusive although insufficient for classification.

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Assessment : Not classified due to data which are conclusive although insufficient for classification.

Test Type : Buehler Test
Exposure routes : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : negative
Remarks : The test was conducted according to guideline

Assessment : Not classified due to data which are conclusive although insufficient for classification.

xylene:

Assessment	:	Not classified due to data which are conclusive although insufficient for classification.
Test Type	:	Local lymph node assay (LLNA)
Exposure routes	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	negative
Remarks	:	The test was conducted equivalent or similar to guideline
Assessment	:	Not classified due to data which are conclusive although insufficient for classification.

2-methoxy-1-methylethyl acetate:

Assessment	:	Not classified due to data which are conclusive although insufficient for classification.
Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative
Remarks	:	The test was conducted according to guideline
Assessment	:	Not classified due to data which are conclusive although insufficient for classification.

4-isocyanatosulphonyltoluene:

Result	:	Probability of respiratory sensitisation in humans based on animal testing

Germ cell mutagenicity

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

Components:

Hexamethylene-di-isocyanate, polymer:

Genotoxicity in vitro	:	Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: negative The test was conducted according to guideline Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative The test was conducted according to guideline Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476
Result: negative
The test was conducted according to guideline

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative
The test was conducted equivalent or similar to guideline

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

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Method: Regulation (EC) No. 440/2008, Annex, B.10
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: In vitro mammalian cell gene mutation test
Method: Regulation (EC) No. 440/2008, Annex, B.17
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: equivocal
The test was conducted equivalent or similar to guideline

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Species: Mouse
Application Route: Subcutaneous
Method: OECD Test Guideline 478
Result: negative
The test was conducted equivalent or similar to guideline

Germ cell mutagenicity- Assessment : Not classified due to data which are conclusive although insufficient for classification.

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: positive
The test was conducted equivalent or similar to guideline

Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: positive
The test was conducted equivalent or similar to guideline

Genotoxicity in vivo : Test Type: comet assay
Species: Rat

Application Route: oral (gavage)
Method: OECD Test Guideline 489
Result: positive
The test was conducted according to guideline

Germ cell mutagenicity- Assessment : Not classified due to data which are conclusive although insufficient for classification.

xylene:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Method: Regulation (EC) No. 440/2008, Annex, B.10
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: In vitro mammalian cell gene mutation test
Method: Regulation (EC) No. 440/2008, Annex, B.17
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: equivocal
The test was conducted equivalent or similar to guideline

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Species: Mouse
Application Route: Subcutaneous
Method: OECD Test Guideline 478
Result: negative
The test was conducted equivalent or similar to guideline

Germ cell mutagenicity- Assessment : Not classified due to data which are conclusive although insufficient for classification.

2-methoxy-1-methylethyl acetate:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 473
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
The test was conducted equivalent or similar to guideline

Germ cell mutagenicity- As- : Not classified due to data which are conclusive although insuf-

sessment | ficient for classification.

4-isocyanatosulphonyltoluene:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: positive
The test was conducted according to guideline

Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
The test was conducted according to guideline

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse
Application Route: oral (gavage)
Method: OECD Test Guideline 474
Result: negative
The test was conducted according to guideline

Germ cell mutagenicity- Assessment : Not classified due to data which are conclusive although insufficient for classification.

Carcinogenicity

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

Components:

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

Species : Mouse
Application Route : inhalation (vapour)
Exposure time : 103 Weeks
Method : OECD Test Guideline 451
Result : positive
Remarks : The test was conducted equivalent or similar to guideline

Species : Mouse
Application Route : oral (gavage)
Exposure time : 1030 d
Method : Regulation (EC) No. 440/2008, Annex, B.32
Result : negative
Remarks : The test was conducted equivalent or similar to guideline

Carcinogenicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Species : Mouse, male
Application Route : Dermal

Result	:	negative
Remarks	:	No test guideline followed
Carcinogenicity - Assessment	:	Not classified due to data which are conclusive although insufficient for classification.

xylene:

Species	:	Mouse
Application Route	:	inhalation (vapour)
Exposure time	:	103 Weeks
Method	:	OECD Test Guideline 451
Result	:	positive
Remarks	:	The test was conducted equivalent or similar to guideline
Species	:	Mouse
Application Route	:	oral (gavage)
Exposure time	:	1030 d
Method	:	Regulation (EC) No. 440/2008, Annex, B.32
Result	:	negative
Remarks	:	The test was conducted equivalent or similar to guideline
Carcinogenicity - Assessment	:	Not classified due to data which are conclusive although insufficient for classification.

2-methoxy-1-methylethyl acetate:

Species	:	Rat
Application Route	:	inhalation (vapour)
Exposure time	:	2 yr
Method	:	OECD Test Guideline 453
Result	:	negative
Remarks	:	The test was conducted according to guideline
Carcinogenicity - Assessment	:	Not classified due to data which are conclusive although insufficient for classification.

4-isocyanatosulphonyltoluene:

Carcinogenicity - Assessment	:	Not classified due to data which are conclusive although insufficient for classification.

Reproductive toxicity

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

Components:

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

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: inhalation (vapour)

Method: OPPTS 870.3800
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: Screening test
Species: Rat
Application Route: oral (gavage)
Method: OECD Test Guideline 422
Result: negative
The test was conducted according to guideline

Effects on foetal development : Test Type: Developmental Toxicity
Species: Rabbit
Application Route: Inhalation
Result: positive
The test was conducted equivalent or similar to guideline

Test Type: Developmental Toxicity
Species: Rat
Application Route: oral (gavage)
Result: positive
The test was conducted according to guideline

Reproductive toxicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

Not classified due to data which are conclusive although insufficient for classification.

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Effects on fertility : Test Type: One-generation reproduction toxicity study
Species: Rat
Application Route: oral (gavage)
Method: OECD Test Guideline 415
Result: negative
The test was conducted according to guideline

Effects on foetal development : Test Type: Developmental Toxicity
Species: Rabbit
Application Route: oral (gavage)
Result: negative
The test was conducted equivalent or similar to guideline

Reproductive toxicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

Not classified due to data which are conclusive although insufficient for classification.

xylene:

Effects on fertility : Test Type: Two-generation reproduction toxicity study

Species: Rat
Application Route: inhalation (vapour)
Method: OPPTS 870.3800
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: Screening test
Species: Rat
Application Route: oral (gavage)
Method: OECD Test Guideline 422
Result: negative
The test was conducted according to guideline

Effects on foetal development : Test Type: Developmental Toxicity
Species: Rabbit
Application Route: Inhalation
Result: positive
The test was conducted equivalent or similar to guideline

Test Type: Developmental Toxicity
Species: Rat
Application Route: oral (gavage)
Result: positive
The test was conducted according to guideline

Reproductive toxicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

Not classified due to data which are conclusive although insufficient for classification.

2-methoxy-1-methylethyl acetate:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: inhalation (vapour)
Method: OECD Test Guideline 416
Result: positive
The test was conducted according to guideline

Test Type: Screening test
Species: Rat
Application Route: oral (gavage)
Method: OECD Test Guideline 422
Result: negative
The test was conducted according to guideline

Effects on foetal development : Test Type: Developmental Toxicity
Species: Rat
Application Route: Inhalation
Result: negative
The test was conducted equivalent or similar to guideline

Reproductive toxicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

Not classified due to data which are conclusive although insufficient for classification.

4-isocyanatosulphonyltoluene:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: oral (feed)
Method: OECD Test Guideline 416
Result: negative
The test was conducted according to guideline

Reproductive toxicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

Not classified due to data which are conclusive although insufficient for classification.

STOT - single exposure

May cause respiratory irritation.
May cause respiratory irritation.

Components:

Hexamethylene-di-isocyanate, polymer:

Assessment : May cause respiratory irritation.

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

Assessment : May cause respiratory irritation.

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Assessment : Not classified due to data which are conclusive although insufficient for classification.

xylene:

Assessment : May cause respiratory irritation.

2-methoxy-1-methylethyl acetate:

Assessment : May cause drowsiness or dizziness.

4-isocyanatosulphonyltoluene:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

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

Components:

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

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

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Assessment : Not classified due to data which are conclusive although insufficient for classification.

xylene:

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

2-methoxy-1-methylethyl acetate:

Assessment : Not classified due to data which are conclusive although insufficient for classification.

4-isocyanatosulphonyltoluene:

Assessment : Not classified due to data which are conclusive although insufficient for classification.

Aspiration hazard

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

Components:

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

May be fatal if swallowed and enters airways.

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Not classified due to data which are conclusive although insufficient for classification.

xylene:

May be fatal if swallowed and enters airways.

2-methoxy-1-methylethyl acetate:

Not classified due to data which are conclusive although insufficient for classification.

4-isocyanatosulphonyltoluene:

Not classified due to data which are conclusive although insufficient for classification.

11.2 Information on other hazards

Endocrine disrupting properties

Not classified due to lack of data.

Product:

Assessment : 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.

Further information

Product:

Remarks : Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Hexamethylene-di-isocyanate, polymer:

Toxicity to algae/aquatic plants : EL50 (Desmodesmus subspicatus (green algae)): > 1,000 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
The test was conducted equivalent or similar to guideline

EL10 (Desmodesmus subspicatus (green algae)): 370 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
The test was conducted equivalent or similar to guideline

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological 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 algae/aquatic : ErC50 (Desmodesmus subspicatus (green algae)): 91.2 mg/l

plants		Exposure time: 72 h
Toxicity to microorganisms	:	EC50 (Bacteria): >= 1 - 100 mg/l
Toxicity to fish (Chronic toxicity)	:	NOEC: 0.714 mg/l Exposure time: 35 d Species: Danio rerio (zebra fish) Method: OECD Test Guideline 210 The test was conducted according to guideline
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	EC10: 1.91 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211 The test was conducted according to guideline

Ecotoxicology Assessment

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

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Toxicity to fish	:	LC50 (Cyprinus carpio (Carp)): 55 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 350 mg/l Exposure time: 96 h
Toxicity to microorganisms	:	EC50 (activated sludge): > 100 mg/l Exposure time: 3 h
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 100 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)

xylene:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 3300 - 4093 µg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): 2930 - 4400 µg/l Exposure time: 48 h LC50 (Daphnia magna (Water flea)): >=8500 µg/l Exposure time: 48 h
Toxicity to microorganisms	:	NOEC (activated sludge): 16 mg/l Exposure time: 28 d EC50 (activated sludge): > 175 mg/l Exposure time: 30 min

Method: OECD Test Guideline 209
The test was conducted equivalent or similar to guideline

Toxicity to fish (Chronic toxicity) : NOEC: 0.714 mg/l
Exposure time: 35 d
Species: Danio rerio (zebra fish)
Method: OECD Test Guideline 210
The test was conducted according to guideline

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10: 1.91 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
The test was conducted according to guideline

2-methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 130 mg/l
Exposure time: 96 h

NOEC : 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC50 : 408 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): >= 1,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201
The test was conducted according to guideline

EC50 (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201
The test was conducted according to guideline

Toxicity to microorganisms : EC10 (activated sludge): > 1,000 mg/l
Exposure time: 30 min
Method: OECD Test Guideline 209
The test was conducted equivalent or similar to guideline

Toxicity to fish (Chronic toxicity) : EC10: 47.5 mg/l

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: >= 100 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
The test was conducted according to guideline

4-isocyanatosulphonyltoluene:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 The test was conducted according to guideline
Toxicity to algae/aquatic plants	:	EC10 (Pseudokirchneriella subcapitata (green algae)): 23 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 The test was conducted according to guideline EC50 (Pseudokirchneriella subcapitata (green algae)): 30 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 The test was conducted according to guideline

12.2 Persistence and degradability

Components:

Hexamethylene-di-isocyanate, polymer:

Biodegradability	:	Result: Not readily biodegradable. Biodegradation: 1 % Exposure time: 28 d Method: Directive 67/548/EEC Annex V, C.4.E. The test was conducted according to guideline

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

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

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Biodegradability	:	Result: Not readily biodegradable. Biodegradation: 37 % Exposure time: 28 d Method: Regulation (EC) No. 440/2008, Annex, C.4-A The test was conducted according to guideline

xylene:

Biodegradability	:	Readily biodegradable.

2-methoxy-1-methylethyl acetate:

Biodegradability	:	Readily biodegradable.

4-isocyanatosulphonyltoluene:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 45 % Exposure time: 28 d

Method: OECD Test Guideline 301D
The test was conducted according to guideline

12.3 Bioaccumulative potential

Components:

Hexamethylene-di-isocyanate, polymer:

Partition coefficient: n-octanol/water : log Pow: > 4
Calculation method

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

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Partition coefficient: n-octanol/water : log Pow: 0.5 (20 °C)
pH: 7

xylene:

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

Partition coefficient: n-octanol/water : log Pow: 3.12 (20 °C)
pH: 7

2-methoxy-1-methylethyl acetate:

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

4-isocyanatosulphonyltoluene:

Partition coefficient: n-octanol/water : log Pow: 0.6
Method: OECD Test Guideline 117
The test was conducted according to guideline

12.4 Mobility in soil

Components:

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

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

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

xylene:

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

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:

Assessment	:	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.

12.7 Other adverse effects

Product:

Additional ecological information	:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.
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 varnish 08 01 11, waste paint and varnish containing organic solvents

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
HP4, Irritant - skin irritation and eye damage
HP5, Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
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
IATA	:	UN 1263

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

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

14.4 Packing group

ADN

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

ADR

Packing group	:	III
Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3
Tunnel restriction code	:	(D/E)

RID

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

IMDG

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

IATA (Cargo)

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

IATA (Passenger)

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

14.5 Environmental hazards

ADN

Environmentally hazardous	:	no

ADR

Environmentally hazardous	:	no

RID

Environmentally hazardous	:	no

IMDG

Marine pollutant	:	no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data

Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 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 3 Number on list 40 This substance/mixture shall not be used in aerosol dispensers intended for supply to the general public for entertainment and decorative purposes. Number on list 75 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 (EU) No 2024/590 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
Regulation (EU) 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.	P5c	FLAMMABLE LIQUIDS

Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 49.69 %

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

H226	:	Flammable liquid and vapour.
H304	:	May be fatal if swallowed and enters airways.
H312	:	Harmful in contact with skin.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
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.
H412	:	Harmful to aquatic life with long lasting effects.
EUH014	:	Reacts violently with water.
H315	:	Causes skin irritation.
H319	:	Causes serious eye irritation.
H335	:	May cause respiratory irritation.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Asp. Tox.	:	Aspiration hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
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
Skin Irrit.	:	Skin irritation
STOT SE	:	Specific target organ toxicity - single exposure
Eye Irrit.	:	Eye irritation
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
98/24/EC I	:	Europe. Chemical Agents Directive - Annex I: Binding occupational exposure limit values
IE OEL	:	Ireland. List of Chemical Agents and Carcinogens with Occu-

		pational Exposure Limit Values - Code of Practice, Schedule 1 and 2
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL	:	Short term exposure limit
98/24/EC I / STEL	:	Limit values Short-term
98/24/EC I / TWA	:	Limit values 8 hours
IE OEL / OELV - 8 hrs (TWA)	:	Occupational exposure limit value (8-hour reference period)
IE OEL / OELV - 15 min (STEL)	:	Occupational exposure limit value (15-minute reference period)

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 Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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 - Organisation 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

Classification of the mixture:		**Classification procedure:**
Flam. Liq. 3	H226	Based on product data or assessment
Acute Tox. 4	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Dam. 1	H318	Calculation method

Skin Sens. 1	H317	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 2	H373	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.