

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

1.1. Product identifier

Mixture identification:

Trade name: DESMOPOL T

Trade code: 9001912

Registration Number N/A

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

Recommended use: Polyurethane for waterproofing and protection

Uses advised against: Data not available

1.3. Details of the supplier of the safety data sheet

Company: TECNOPOL SISTEMAS

c/Finlàndia, 33

08520 Les Franqueses del Vallès

Barcelona (Spain)

Responsible: info@tecnopol.es

1.4. Emergency telephone number

(National Institute of Toxicology) 0034 915 62 04 20

TECNOPOL SISTEMAS

Phone: +34 935 682 111 (office hours)

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Flam. Liq. 3	Flammable liquid and vapour.
Skin Irrit. 2	Causes skin irritation.
Eye Irrit. 2	Causes serious eye irritation.
Skin Sens. 1B	May cause an allergic skin reaction.
STOT SE 3	May cause respiratory irritation.
STOT RE 2	May cause damage to organs through prolonged or repeated exposure.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) n. 1272/2008 (CLP)

Pictograms and Signal Words



Warning

Hazard statements:

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P312	Call a POISON CENTER if you feel unwell.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P370+P378 In case of fire, use a dry powder fire extinguisher to extinguish.

Special Provisions:

EUH204 Contains isocyanates. May produce an allergic reaction.

Contains:

Isophorone diisocyanate homopolymer

o-xylene

o-xylene

reaction mass of ethylbenzene and m-xylene and p-xylene

Carbonic acid, dimethyl ester, polymer with 1,6-hexanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2-oxepa

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate; isophorone di-isocyanate

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT/vPvB Ingredients are present

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: DESMOPOL T

Hazardous components within the meaning of the CLP regulation and related classification:

Quantity	Name	Ident. Numb.	Classification	Registration Number
≥25 - <50 %	Carbonic acid, dimethyl ester, polymer with 1,6-hexanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2-oxepa	CAS:426822-87-9 EC:642-395-8	Skin Sens. 1, H317	
≥10 - <20 %	Isophorone diisocyanate homopolymer	CAS:53880-05-0 EC:500-125-5	Skin Sens. 1B, H317; STOT SE 3, H335	01-2119488734-24-0002
≥10 - <20 %	o-xylene	CAS:1330-20-7 EC:215-535-7 Index:601-022-00-9	Flam. Liq. 3, H226; Asp. Tox. 1, H304; STOT RE 2, H373; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 3, H412; STOT SE 3, H335	01-2119488216-32-XXXX
≥5 - <10 %	2-methoxy-1-methylethylacetate	CAS:108-65-6 EC:203-603-9	Flam. Liq. 3, H226	01-2119475791-29-XXXX
≥2.5 - <5 %	2-methoxy-1-methylethyl acetate	CAS:108-65-6 EC:203-603-9 Index:607-195-00-7	Flam. Liq. 3, H226	01-2119475791-29-xxxx
≥2.5 - <5 %	o-xylene	CAS:1330-20-7 EC:215-535-7	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Acute Tox. 4, H332; Acute Tox. 4, H312; Eye Irrit. 2, H319; Skin Irrit. 2, H315; STOT SE 3, H335; STOT RE 2, H373	01-2119488216-32-XXXX
≥0.1 - <0.25 %	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate; isophorone di-isocyanate	CAS:4098-71-9 EC:223-861-6 Index:615-008-00-5	Acute Tox. 1, H330; Eye Irrit. 2, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; Aquatic Chronic 2, H411	01-2119490408-31-0002

≥0.05 - <0.1 %	Solvent naphtha (petroleum), light arom. (*)	CAS:64742-95-6 EC:265-199-0 Index:649-356-00-4	Flam. Liq. 3, H226; STOT SE 3, H335; Asp. Tox. 1, H304; STOT SE 3, H336; Aquatic Chronic 2, H411, EUH066, DECLP(*)
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(*)DECLP Substance classified in accordance with Note P, Annex VI of EC Regulation (EC) 1272/2008.

The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7). When the substance is not classified as a carcinogen at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply. This note applies only to certain complex oil-derived substances in Part 3.

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

4.2. Most important symptoms and effects, both acute and delayed

Eye irritation

Eye damages

Skin Irritation

Erythema

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

In case of fire, use a dry powder fire extinguisher to extinguish.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Note
o-xylene	National	SWEDEN		221	50	442	100		SWEDEN, Short term value, 15 minutes average value
	National	FINLAND		220	50	440	100		FINLAND, hud
	National	NORWAY		108	25				NORWAY, H
	EU	NNN		221	50	442	100		Skin
	National	NORWAY		109	25	218	50		
	ACGIH	NNN			100		150		A4, BEI - URT and eye irr, CNS impair
	DFG	GERMANY	C			880	200		
	ACGIH				100		150		A4 - Not Classifiable as a Human Carcinogen; CNS impairment; eye and upper respiratory tract irritation
	National	SWEDEN			221	50			
	National	FRANCE			221	50	442	100	
	National	SPAIN			221	50	442	100	
	National	GREECE			435	100	650	150	
	National	DENMARK			109	25			
	National	FINLAND			220	50	440	100	
	National	GERMANY			440	100			
	National	PORTUGAL			221	50	442	100	
National	NORWAY			108	25	135	37,5		
National	BELGIUM			221	50	442	100		
NDS	POLAND			100					
NDSch	POLAND					200			
CHE	SWITZERLAND					870	200		

NDS	NETHERLANDS		210		442	
National	CZECH REPUBLIC		200			
National	HUNGARY		221		442	
Malaysi a OEL	MALAYSIA		434	100		
National	ESTONIA		200	50	450	100
National	LATVIA		221	50	442	100
National	CZECH REPUBLIC	C			400	
National	SLOVAKIA	C			442	
National	SLOVAKIA		221	50		
National	SLOVENIA		221	50	442	100
National	UNITED KINGDOM		220	50	441	100
National	BULGARIA		221,0	50	442	100
National	ROMANIA		221	50	442	100
TUR	TURKEY		221	50	442	100
National	LITHUANIA		221	50	442	100
National	CROATIA		221	50	442	100
EU			221	50	442	100
						Indicative
						Possibility of significant uptake through the skin (pure)
2-methoxy-1- methylethylacetate	DFG	GERMANY	C		270	50
	National	SWEDEN		275	50	
	National	FRANCE		275	50	550
	National	SPAIN		275	50	550
	National	GREECE		275	50	550
	National	DENMARK		275	50	
	National	FINLAND		270	50	550
	National	GERMANY		270	50	
	National	PORTUGAL		275	50	550
	National	NORWAY		270	50	337,5
	National	BELGIUM		275	50	550
	NDS	POLAND		260		
	NDSCh	POLAND				520
	CHE	SWITZERLAND				275
	NDS	NETHERLANDS		550		
	National	CZECH REPUBLIC		270		
	National	HUNGARY		275		550
	National	ESTONIA		275	50	550
	National	LATVIA		275	50	550
	National	CZECH REPUBLIC	C			550
	National	SLOVAKIA	C			550
	National	SLOVAKIA		275	50	
	National	SLOVENIA		275	50	550
	National	UNITED KINGDOM		274	50	548
	National	BULGARIA		275,0	50	550,0
	National	ROMANIA		275	50	550
	TUR	TURKEY		275	50	550

	National LITHUANIA		250	50	400	75		
	National CROATIA		275	50	550	100		
	EU		275	50	550	100	Indicative	Possibility of significant uptake through the skin;
	EU		275	50	550	100	Indicative	Possibility of significant uptake through the skin
2-methoxy-1-methylethyl acetate	ACGIH NNN		275	50	550	100		Skin
	SUVA NNN		275	50				
	National SWEDEN		250	50	400	75		SWEDEN, Short-term value, 15 minutes average value
	National FINLAND		270	50	550	100		FINLAND, hud
	National NORWAY		270	50				NORWAY, H
	NDS NNN		260					
	NDSch NNN		520					
	EU NNN		275	50	550	100		Skin
	National NORWAY		275	50	550	100		
	DFG GERMANY	C			270	50		
	National SWEDEN		275	50				
	National FRANCE		275	50	550	100		
	National SPAIN		275	50	550	100		
	National GREECE		275	50	550	100		
	National DENMARK		275	50				
	National FINLAND		270	50	550	100		
	National GERMANY		270	50				
	National PORTUGAL		275	50	550	100		
	National NORWAY		270	50	337,5	75		
	National BELGIUM		275	50	550	100		
	NDS POLAND		260					
	NDSch POLAND				520			
	CHE SWITZERLAND				275	50		
	NDS NETHERLANDS		550					
	National CZECH REPUBLIC		270					
	National HUNGARY		275		550			
	National ESTONIA		275	50	550	100		
	National LATVIA		275	50	550	100		
	National CZECH REPUBLIC	C			550			
	National SLOVAKIA	C			550			
	National SLOVAKIA		275	50				
	National SLOVENIA		275	50	550	100		
	National UNITED KINGDOM		274	50	548	100		
	National BULGARIA		275,0	50	550,0	100		
	National ROMANIA		275	50	550	100		
	TUR TURKEY		275	50	550	100		
	National LITHUANIA		250	50	400	75		
	National CROATIA		275	50	550	100		
	EU		275	50	550	100	Indicative	Possibility of significant uptake through the skin
o-xylene	National SWEDEN		221	50	442	100		SWEDEN, Short term value, 15 minutes average value
	National FINLAND		220	50	440	100		FINLAND, hud

National	NORWAY			108	25					NORWAY, H
EU	NNN			221	50	442	100			Skin
National	NORWAY			109	25	218	50			
ACGIH	NNN				100		150			A4, BEI - URT and eye irr, CNS impair
National	POLAND			100						
DFG	GERMANY	C				880	200			
ACGIH					100		150			A4 - Not Classifiable as a Human Carcinogen; CNS impairment; eye and upper respiratory tract irritation
National	SWEDEN			221	50					
National	FRANCE			221	50	442	100			
National	SPAIN			221	50	442	100			
National	GREECE			435	100	650	150			
National	DENMARK			109	25					
National	FINLAND			220	50	440	100			
National	GERMANY			440	100					
National	PORTUGAL			221	50	442	100			
National	NORWAY			108	25	135	37,5			
National	BELGIUM			221	50	442	100			
NDS	POLAND			100						
NDSch	POLAND					200				
CHE	SWITZERLAND					870	200			
NDS	NETHERLANDS			210		442				
National	CZECH REPUBLIC			200						
National	HUNGARY			221		442				
Malaysi a OEL	MALAYSIA			434	100					
National	ESTONIA			200	50	450	100			
National	LATVIA			221	50	442	100			
National	CZECH REPUBLIC	C				400				
National	SLOVAKIA	C				442				
National	SLOVAKIA			221	50					
National	SLOVENIA			221	50	442	100			
National	UNITED KINGDOM			220	50	441	100			
National	BULGARIA			221,0	50	442	100			
National	ROMANIA			221	50	442	100			
TUR	TURKEY			221	50	442	100			
National	LITHUANIA			221	50	442	100			
National	CROATIA			221	50	442	100			
EU				221	50	442	100		Indicative	Possibility of significant uptake through the skin (pure)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate; isophorone di-isocyanate	DFG	GERMANY	C			0,046	0,005			
	ACGIH				0,005					respiratory sensitization
	National	SWEDEN		0,018	0,002					
	National	FRANCE		0,09	0,01	0,18	0,02			
	National	SPAIN		0,046	0,005					

National GREECE	0,09	0,01	0,18	0,02
National DENMARK	0,045	0,005		
National GERMANY	0,046	0,005		
National PORTUGAL		0,005		
National NORWAY	0,045	0,005		0,01
National BELGIUM	0,046	0,005		
NDS POLAND	0,04			
Malaysi a OEL MALAYSIA	0,045	0,005		
National ESTONIA	0,05	0,005	0,09	0,01
National SLOVENIA	0,092	0,01	0,092	0,01
National BULGARIA	0,1			
National LITHUANIA	0,05	0,005		
National LITHUANIA C			0,09	0,01

Solvent naphtha (petroleum), light arom. (*)

EU	NNN	100	19
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Biological Exposure Index

CAS-No.	Component	Value	UoM	Medium	Biological Indicator	Sampling Period
1330-20-7	o-xylene	1,5	GGCREAT	Urine	Methyl uric Acid	End of turn
1330-20-7	o-xylene	1,5	GGCREAT	Urine	Methyl uric Acid	End of turn

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC Limit	Exposure Route	Exposure Frequency	Remark
Isophorone diisocyanate homopolymer	53880-05-0	0,0015 mg/l	Fresh Water		
		0,00015 mg/l	Marine water		
		100 mg/l	Microorganisms in sewage treatments		
o-xylene	1330-20-7	0,327 mg/l	Fresh Water		
		0,327 mg/l	Marine water		
		12,46 mg/kg	Freshwater sediments		
		12,46 mg/kg	Marine water sediments		
		2,31 mg/kg	Soil		
		6,58 mg/l	Microorganisms in sewage treatments		
2-methoxy-1-methylethylacetate	108-65-6	0,32 mg/l	Intermittent release		
		0,635 mg/l	Fresh Water		
		0,0635 mg/l	Marine water		
		3,29 mg/kg	Freshwater sediments		
		0,329 mg/kg	Marine water sediments		
2-methoxy-1-methylethyl acetate	108-65-6	0,29 mg/kg	Soil		
		0,635 mg/l	Fresh Water		
		0,0635 mg/l	Marine water		
		3,29 mg/kg	Freshwater		

					sediments
		0,329 mg/kg			Marine water sediments
		6,35 mg/l			Intermittent release
		100 mg/l			Microorganisms in sewage treatments
		0,29 mg/kg			Soil
o-xylene	1330-20-7	0,327 mg/l			Fresh Water
		0,327 mg/l			Marine water
		12,46 mg/kg			Freshwater sediments
		12,46 mg/kg			Marine water sediments
		2,31 mg/kg			Soil
		6,58 mg/l			Microorganisms in sewage treatments
		0,327 mg/l			Intermittent release
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate; isophorone di-isocyanate	4098-71-9	0,06 mg/l			Fresh Water
		0,006 mg/l			Marine water
		218,92 mg/kg			Freshwater sediments
		21,89 mg/kg			Marine water sediments
		44,01 mg/kg			Soil
		10,6 mg/l			Microorganisms in sewage treatments

Derived No Effect Level. (DNEL)

Component	CAS-No.	Worker Industrial	Worker Professional	Consumer	Exposure Route	Exposure Frequency	Remark
Isophorone diisocyanate homopolymer	53880-05-0	0,58 mg/m3			Human Inhalation	Short Term, local effects	
		0,29 mg/m3			Human Inhalation	Long Term, local effects	
o-xylene	1330-20-7	442,000000 mg/m3		174 mg/m3	Human Inhalation	Short Term, local effects	
		289 mg/m3		174 mg/m3	Human Inhalation	Short Term, systemic effects	
		212,000000 mg/kg		125,000000 mg/kg	Human Dermal	Long Term, systemic effects	
		221,000000 mg/m3		65,300000 mg/m3	Human Inhalation	Long Term, systemic effects	
				12,500000 mg/kg	Human Oral	Long Term, systemic effects	
2-methoxy-1-methylethylacetate	108-65-6	153,5 mg/kg		54,8 mg/kg	Human Dermal	Long Term, systemic effects	
		275 mg/m3		33 mg/m3	Human Inhalation	Long Term, systemic effects	

			1,67 mg/kg	Human Oral	Long Term, systemic effects
2-methoxy-1-methylethyl acetate	108-65-6	796 mg/kg	320 mg/kg	Human Dermal	Long Term, systemic effects
		275 mg/m3	33 mg/m3	Human Inhalation	Long Term, systemic effects
			36 mg/kg	Human Oral	Long Term, systemic effects
		550 mg/m3		Human Inhalation	Short Term, local effects
o-xylene	1330-20-7	289 mg/m3	174 mg/m3	Human Inhalation	Short Term, systemic effects
		289 mg/m3	174 mg/m3	Human Inhalation	Short Term, local effects
		180 mg/kg	108 mg/kg	Human Dermal	Long Term, systemic effects
		77 mg/m3	14,8 mg/m3	Human Inhalation	Long Term, systemic effects
			1,6 mg/kg	Human Oral	Long Term, systemic effects
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate; isophorone di-isocyanate	4098-71-9	0,0453 mg/m3		Human Inhalation	Long Term, local effects
		0,0453 mg/m3		Human Inhalation	Short Term, local effects
Solvent naphtha (petroleum), light arom. (*)	64742-95-6	25 mg/kg		Human Dermal	Long Term, systemic effects
		150 mg/m3		Human Inhalation	Long Term, systemic effects
			11 mg/kg	Human Dermal	Long Term, systemic effects
			32 mg/m3	Human Inhalation	Long Term, systemic effects
			11 mg/kg	Human Oral	Long Term, systemic effects

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; EN 374:

Polychloroprene - CR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Nitrile rubber - NBR: thickness $\geq 0,35\text{mm}$; breakthrough time $\geq 480\text{min}$.

Butyl rubber - IIR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Fluorinated rubber - FKM: thickness $\geq 0,4\text{mm}$; breakthrough time $\geq 480\text{min}$.

Neoprene gloves are suggested (0,5 mm) not recommended gloves: not waterproof gloves

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN 374 for gloves and EN 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

In case of insufficient ventilation use mask with ABEKP filters (EN 14387).

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Hygienic and Technical measures

N.A.

Appropriate engineering controls:

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: Liquid

Appearance and colour: Viscous transparent

Odour: N.A.

Odour threshold: N.A.

pH: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Flash point: 38 °C (100 °F)

Evaporation rate: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 1.03 g/cm³

Solubility in water: N.A.

Partition coefficient (n-octanol/water): N.A. - This product is a mixture

Auto-ignition temperature: N.A. - No explosive or spontaneous ignition in contact with air at room temperature

Decomposition temperature: N.A.

Viscosity: 2,000.00 cPs

Explosive properties: N.A. - No components with explosive properties

Oxidizing properties: N.A. - No component with oxidizing properties

Solid/gas flammability: N.A.

9.2. Other information

No additional information

SECTION 10: Stability and reactivity**10.1. Reactivity**

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicological information of the mixture:**

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

Carbonic acid, dimethyl ester, polymer with 1,6-hexanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2-oxepa	a) acute toxicity	LC50 Inhalation Dust Rat > 5,00000 mg/l 4h
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Isophorone diisocyanate homopolymer	a) acute toxicity	LC50 Inhalation Rat > 5 mg/l 4h
		LD50 Oral Rat > 14000 mg/kg

o-xylene	a) acute toxicity	LD50 Oral Mouse = 5627,00000 mg/kg LC50 Inhalation Vapour Rat = 11 mg/l 4h LD50 Skin Rabbit > 5000,00000 mg/kg LC50 Inhalation Rat = 29,08000 mg/l 4h LC50 Inhalation Rat = 6700,00000 ppm 4h LD50 Skin Rabbit > 4350 mg/kg LD50 Oral Rat = 3500 mg/kg
	e) germ cell mutagenicity	NOAEL Inhalation Rat > 2000,00000 ppm
	f) carcinogenicity	NOAEL Oral Rat = 500 mg/kg
	g) reproductive toxicity	NOAEL Inhalation Rat = 500,00000 ppm
2-methoxy-1-methylethylacetate	a) acute toxicity	LD50 Oral Rat = 8532 mg/kg LD50 Skin Rat > 5000 mg/kg LC50 Inhalation Vapour = 1105 mg/m3 4h LD50 Skin Rabbit > 5 g/kg LD50 Oral Rat = 8532 mg/kg
2-methoxy-1-methylethyl acetate	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg LD50 Skin Rabbit > 5000 mg/kg LC50 Inhalation Dust Rat > 23,8 mg/l LD50 Skin Rabbit > 5 g/kg LD50 Oral Rat = 8532 mg/kg
	e) germ cell mutagenicity	NOAEL Inhalation Rat = 1000 ppm
	g) reproductive toxicity	NOAEL Inhalation Rat = 500 ppm
o-xylene	a) acute toxicity	LD50 Oral Rat = 3523 mg/kg LD50 Skin Rabbit > 4200 mg/kg LC50 Inhalation Vapour Rat > 20 mg/l 4h LD50 Skin Rabbit > 4350 mg/kg LC50 Inhalation Rat = 29,08 mg/l 4h LD50 Oral Rat = 3500 mg/kg
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate; isophorone di-isocyanate	a) acute toxicity	LC50 Inhalation Rat = 0,031 mg/l 4h LD50 Oral Rat = 4814 mg/kg LD50 Oral Mouse > 2645 mg/kg LD50 Skin Rat > 7000 mg/kg LD50 Skin Rabbit 1060 mg/kg LD50 Oral Rat = 1097 mg/kg LC50 Inhalation Rat = 0,135 mg/l 4h
	e) germ cell mutagenicity	NOAEL Inhalation Rat = 4,0 mg/m3
Solvent naphtha (petroleum), light arom. (*)	a) acute toxicity	LD50 Oral Rat > mg/kg LD50 Skin Rabbit > 2000 mg/kg LD50 Skin Rabbit > 2000 mg/kg LC50 Inhalation Rat = 3400 ppm 4h LD50 Oral Rat = 8400 mg/kg

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- Toxicological kinetics, metabolism and distribution information
- i) STOT-repeated exposure
- j) aspiration hazard

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
Carbonic acid, dimethyl ester, polymer with 1,6-hexanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2-oxepa	CAS: 426822-87-9 - EINECS: 642-395-8	c) Bacteria toxicity : EC50 Bacteria > 10000,00000 mg/L 3h
Isophorone diisocyanate homopolymer	CAS: 53880-05-0 - EINECS: 500-125-5	a) Aquatic acute toxicity : LC50 Fish > 1,51 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia > 3,36 mg/L 48 a) Aquatic acute toxicity : EC50 Algae > 3,1 mg/L 72 c) Bacteria toxicity : EC50 Bacteria > 10000 mg/L 3
o-xylene	CAS: 1330-20-7 - EINECS: 215-535-7 - INDEX: 601-022-00-9	a) Aquatic acute toxicity : EC50 Daphnia = 165 mg/L 48 a) Aquatic acute toxicity : LC50 Fish = 2,60000 mg/L 96 a) Aquatic acute toxicity : EC50 Algae = 2,2 mg/L 72 c) Bacteria toxicity : EC50 = 96 mg/L 24 b) Aquatic chronic toxicity : NOEC Fish > 1,3 mg/L - 56 days b) Aquatic chronic toxicity : NOEC Daphnia = 1,57 mg/L - 21 days a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 13,4 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 2,661 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus 13,10000 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata 30,26000 mg/L 96h EPA a) Aquatic acute toxicity : EC50 Daphnia water flea = 3,82000 mg/L 48h a) Aquatic acute toxicity : LC50 Daphnia Gammarus lacustris = 0,60000 mg/L 48h b) Aquatic chronic toxicity : EC50 Algae = 0,44000 mg/L 72h a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 13,5 mg/L 96h IUCLID a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 19 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus 7,711 mg/L 96h

		EPA
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 23,53 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Cyprinus carpio = 780 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Cyprinus carpio > 780 mg/L 96h IUCLID
2-methoxy-1-methylethylacetate	CAS: 108-65-6 - EINECS: 203-603-9	a) Aquatic acute toxicity : EC50 Daphnia = 408 mg/L 48
		a) Aquatic acute toxicity : LC50 Fish = 161 mg/L 96
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 161 mg/L 96h IUCLID
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna > 500 mg/L 48h IUCLID
		b) Aquatic chronic toxicity : NOEC Fish = 47,50000 mg/L 14 - d
		b) Aquatic chronic toxicity : NOEC Daphnia > 100,00000 mg/L 21d
2-methoxy-1-methylethyl acetate	CAS: 108-65-6 - EINECS: 203-603-9 - INDEX: 607-195-00-7	a) Aquatic acute toxicity : LC50 Fish = mg/L 96
		a) Aquatic acute toxicity : EC50 Daphnia > 500 mg/L 48
		b) Aquatic chronic toxicity : NOEC Fish = 47,5 mg/L - 14 d
		b) Aquatic chronic toxicity : NOEC Daphnia = 100 mg/L - 21 d
		a) Aquatic acute toxicity : EC50 Algae > 1000 mg/L 72
		a) Aquatic acute toxicity : NOEC Algae = 1000 mg/L 96
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 161 mg/L 96h IUCLID
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna > 500 mg/L 48h IUCLID
o-xylene	CAS: 1330-20-7 - EINECS: 215-535-7	a) Aquatic acute toxicity : EC50 Algae = 2,2 mg/L 72
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 13,4 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 2,661 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 13,5 mg/L 96h IUCLID
		a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus 13,1 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 19 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus 7,711 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 23,53 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Cyprinus carpio = 780 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Cyprinus carpio > 780 mg/L 96h IUCLID
		a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata 30,26 mg/L 96h EPA
		a) Aquatic acute toxicity : EC50 Daphnia water flea = 3,82 mg/L 48h
		a) Aquatic acute toxicity : LC50 Daphnia Gammarus lacustris = 0,6 mg/L 48h
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate; isophorone di-isocyanate	CAS: 4098-71-9 - EINECS: 223-861-6 - INDEX: 615-008-00-5	a) Aquatic acute toxicity : EC50 Daphnia = 27 mg/L 48
		a) Aquatic acute toxicity : EC50 Daphnia = 4 mg/L 96
		a) Aquatic acute toxicity : LC50 Fish > 208 mg/L 96
		b) Aquatic chronic toxicity : NOEC Daphnia = 3 mg/L - 21 d
		c) Bacteria toxicity : EC50 Bacteria = 263 mg/L 3
		a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 118,7

mg/L 72h IUCLID

Solvent naphtha (petroleum), light arom. (*) CAS: 64742-95-6 - EINECS: 265-199-0 - INDEX: 649-356-00-4

a) Aquatic acute toxicity : LC50 Fish = 9,22 mg/L 96

a) Aquatic acute toxicity : EC50 Daphnia = 6,14 mg/L 48

a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 9,22 mg/L 96h IUCLID

a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 6,14 mg/L 48h IUCLID

G : LC50 Avian Colinus virginianus > 6500 ppm 5d IUCLID

G : LD50 Avian Colinus virginianus > 2250 mg/kg IUCLID

12.2. Persistence and degradability

Component	Persistence/Degradability:
o-xylene	Readily biodegradable

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT/vPvB Ingredients are present

12.6. Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

A waste code according to European waste catalogue (EWC) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

Product:

Do not dispose of waste into sewers.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Send to an authorized waste disposal service.

Contaminated packaging:

Empty remaining content.

Dispose of as unused product.

Do not re-use empty containers.

SECTION 14: Transport information

14.1. UN number

1139

14.2. UN proper shipping name

ADR-Shipping Name: COATING SOLUTION

IATA-Technical name: COATING SOLUTION

IMDG-Technical name: COATING SOLUTION

14.3. Transport hazard class(es)

ADR-Class: 3

IATA-Class: 3

IMDG-Class: 3

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Marine pollutant: No

Environmental Pollutant: No

14.6. Special precautions for user

Road and Rail (ADR-RID) :

ADR-Label: 3

ADR-Hazard identification number: 30

ADR-Special Provisions: -

ADR-Transport category (Tunnel restriction code): 3 (D/E)

Air (IATA) :

IATA-Passenger Aircraft: 355

IATA-Cargo Aircraft: 366

IATA-Label: 3

IATA-Subsidiary hazards: -

IATA-Erg: 3L

IATA-Special Provisioning: A3

Sea (IMDG) :

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisioning: 955

IMDG-Page: N/A

IMDG-Label: N/A

IMDG-EMS: F-E, S-E

IMDG-MFAG: N/A

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC (2004/42/EC) : 310 g/l

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EU) 2015/830

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
Products belongs to category P5c	5000	50000

German Water Hazard Class.

N.A.

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3, 40

Restrictions related to the substances contained: 52

SVHC Substances:

No data available

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description
EUH066	Repeated exposure may cause skin dryness or cracking.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.1/1/Inhal	Acute Tox. 1	Acute toxicity (inhalation), Category 1
3.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.10/1	Asp. Tox. 1	Aspiration hazard, Category 1
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.1/1	Resp. Sens. 1	Respiratory Sensitisation, Category 1
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
2.6/3	On basis of test data
3.2/2	Calculation method
3.3/2	Calculation method
3.4.2/1B	Calculation method
3.8/3	Calculation method
3.9/2	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
BCF: Biological Concentration Factor
BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 4. FIRST AID MEASURES
- 5. FIRE-FIGHTING MEASURES

- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 13. DISPOSAL CONSIDERATIONS
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION
- 16. OTHER INFORMATION