

Safety Data Sheet according to (EC) No 1907/2006 as amended

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TEROSON PU 9200 BK

SDS No.: 75920 V016.0 Revision: 26.09.2023 printing date: 02.10.2023 Replaces version from: 10.11.2022

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

1.1. Product identifier

TEROSON PU 9200 BK

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

Intended use:

1-component-polyurethane adhesive

1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA Henkelstr. 67 40589 Düsseldorf

Germany

+49 211 797 0 Phone:

For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkeladhesives.com.

SDSinfo.Adhesive@henkel.com

1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):	
Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Respiratory sensitizer	Category 1
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Specific target organ toxicity - single exposure	Category 3
H335 May cause respiratory irritation.	
Target organ: respiratory tract irritation	
Specific target organ toxicity - repeated exposure	Category 2
H373 May cause damage to organs through prolonged or repeated exposure.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:	
Contains	Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene]
	4,4'- methylenediphenyl diisocyanate
	Hexane, 1,6-diisocyanato-, homopolymer, V=7000-11000 mPas/23 4-isocyanatosulphonyltoluene
	dibutyltin dilaurate
Signal word:	Danger
Hazard statement:	 H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H373 May cause damage to organs through prolonged or repeated exposure.
Supplemental information	As from 24 August 2023 adequate training is required before industrial or professional use. Further information: https://www.feica.eu/PUinfo
Precautionary statement: Prevention	P260 Do not breathe dust/fume/spray. P280 Wear protective gloves/eye protection.
Precautionary statement: Response	P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

2.3. Other hazards

Following substances are present in a concentration \geq the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration \geq the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3- propanetriol (3:1), polymer with 1,1'-methylenebis[4- isocyanatobenzene] 59675-67-1	10- < 20 %	Acute Tox. 4, Inhalation, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Resp. Sens. 1, H334 STOT SE 3, H335 STOT RE 2, H373	oral:ATE => 5.000 mg/kg inhalation:ATE = 1,5 mg/l;dust/mist	
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4 918-167-1 01-2119472146-39	5- < 10 %	Asp. Tox. 1, H304 Flam. Liq. 3, H226	dermal:ATE = 2.201 mg/kg	
Reaction mass of ethylbenzene and m-xylene and p-xylene 01-2119555267-33	1- < 5 %	Aquatic Chronic 3, H412 Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, Dermal, H312 Acute Tox. 4, Inhalation, H332 Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335 STOT RE 2, H373	dermal:ATE = 1.100 mg/kg oral:ATE = 3.523 mg/kg inhalation:ATE = 17,4 mg/l;vapour	
4,4'- methylenediphenyl diisocyanate 101-68-8 202-966-0 01-2119457014-47	0,1-< 1 %	Carc. 2, H351 Acute Tox. 4, Inhalation, H332 STOT RE 2, H373 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317	Eye Irrit. 2; H319; C >= 5 % Skin Irrit. 2; H315; C >= 5 % Resp. Sens. 1; H334; C >= 0,1 % STOT SE 3; H335; C >= 5 %	
Hexane, 1,6-diisocyanato-, homopolymer, V=7000-11000 mPas/23 28182-81-2 500-060-2 01-2119970543-34	0,1-< 1 %	Skin Sens. 1, H317 STOT SE 3, H335 Acute Tox. 4, Inhalation, H332	inhalation:ATE = 1,5 mg/l;dust/mist	
4-isocyanatosulphonyltoluene 4083-64-1 223-810-8 01-2119980050-47	0,1-< 1 %	Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334	Eye Irrit. 2; H319; C >= 5 % STOT SE 3; H335; C >= 5 % Skin Irrit. 2; H315; C >= 5 %	
dibutyltin dilaurate 77-58-7 201-039-8 01-2119496068-27	0,1-< 0,2 %	Acute Tox. 4, Oral, H302 Aquatic Chronic 1, H410 Aquatic Acute 1, H400 STOT RE 1, H372 STOT SE 1, H370 Repr. 1B, H360FD Muta. 2, H341 Skin Sens. 1, H317 Eye Irrit. 2, H319	M acute = 1 M chronic = 1 ===== oral:ATE = 500 mg/kg	

If no ATE values are displayed, please refer to LD/LC50 values in Section 11. For full text of the H - statements and other abbreviations see section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Fresh air, oxygen supply, warmth; seek specialist medical attention. Delayed effects possible after inhalation.

Skin contact:

IF ON SKIN: Wash with plenty of soap and water. In case of adverse health effects seek medical advice.

Eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion: Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed SKIN: Rash, Urticaria.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

4.3. Indication of any immediate medical attention and special treatment needed See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons: High pressure waterjet

5.2. Special hazards arising from the substance or mixture In case of fire toxic gases can be released.5.3. Advice for firefighters

Wear self-contained breathing apparatus. Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures Wear protective equipment. Avoid contact with skin and eyes. Keep unprotected persons away.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove mechanically. Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures:

Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working.

Take off contaminated clothing and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction. Store in a dry place. Container must be made airtight after use. Storage at 15 to 25°C is recommended.

7.3. Specific end use(s)

1-component-polyurethane adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Germany

Ingredient [Regulated substance]	ррт	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Polyvinyl chloride 9002-86-2			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Polyvinyl chloride 9002-86-2		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Polyvinyl chloride 9002-86-2		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Limestone 1317-65-3			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Limestone 1317-65-3		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Limestone 1317-65-3		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Calcium carbonate 471-34-1			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Calcium carbonate 471-34-1		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Calcium carbonate 471-34-1		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silicon dioxide 112945-52-5		4	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silicon dioxide 112945-52-5			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Silicon dioxide 112945-52-5		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silicon dioxide 112945-52-5		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
4,4'-Methylenediphenyl diisocyanate 101-68-8			Skin designation:	Can be absorbed through the skin.	TRGS 900
4,4'-Methylenediphenyl diisocyanate 101-68-8			STEL (Short Term Exposure Limit) factor:	1 Substance listed with both Peak factor and STEL factor. The Peak factor is supplied	TRGS 900

			with the AGW values.	
4,4'-Methylenediphenyl diisocyanate 101-68-8	0.05	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
4,4'-Methylenediphenyl diisocyanate 101-68-8		Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
	Compartment	periou	mg/l	ppm	mg/kg	others	
Reaction mass of ethylbenzene and m- xylene and p-xylene	aqua (freshwater)		0,044 mg/l				
Reaction mass of ethylbenzene and m- xylene and p-xylene	Freshwater - intermittent		0,01 mg/l				
Reaction mass of ethylbenzene and m- xylene and p-xylene	aqua (marine water)		0,004 mg/l				
Reaction mass of ethylbenzene and m- xylene and p-xylene	Marine water - intermittent		0,001 mg/l				
Reaction mass of ethylbenzene and m- xylene and p-xylene	sewage treatment plant (STP)		1,6 mg/l				
Reaction mass of ethylbenzene and m- xylene and p-xylene	sediment (freshwater)				2,52 mg/kg		
Reaction mass of ethylbenzene and m- xylene and p-xylene	sediment (marine water)				0,252 mg/kg		
Reaction mass of ethylbenzene and m- xylene and p-xylene	Soil				0,852 mg/kg		
Reaction mass of ethylbenzene and m- xylene and p-xylene	Predator						no potential for bioaccumulation
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (freshwater)		0,0037 mg/l				
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (intermittent releases)		0,037 mg/l				
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (marine water)		0,00037 mg/l				
4,4'- methylenediphenyl diisocyanate 101-68-8	sediment (freshwater)				11,7 mg/kg		
4,4'- methylenediphenyl diisocyanate 101-68-8	sediment (freshwater)				1,17 mg/kg		
4,4'- methylenediphenyl diisocyanate 101-68-8	Soil				2,33 mg/kg		
4,4'- methylenediphenyl diisocyanate 101-68-8	Predator						no potential for bioaccumulation
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	sewage treatment plant (STP)		6,46 mg/l				
p-Toluenesulphonyl isocyanate 4083-64-1	aqua (freshwater)		0,03 mg/l				
p-Toluenesulphonyl isocyanate 4083-64-1	aqua (marine water)		0,003 mg/l				
p-Toluenesulphonyl isocyanate 4083-64-1	sewage treatment plant (STP)		0,4 mg/l				
p-Toluenesulphonyl isocyanate 4083-64-1	sediment (freshwater)				0,172 mg/kg		
p-Toluenesulphonyl isocyanate 4083-64-1	sediment (marine water)				0,017 mg/kg		
p-Toluenesulphonyl isocyanate 4083-64-1	Soil				0,017 mg/kg		
dibutyltin dilaurate 77-58-7	aqua (freshwater)		0,000463 mg/l				
dibutyltin dilaurate 77-58-7	aqua (marine water)		0,000046 mg/l				
dibutyltin dilaurate 77-58-7	aqua (intermittent releases)		0,005 mg/l				
dibutyltin dilaurate 77-58-7	sewage treatment plant (STP)		100 mg/l				
dibutyltin dilaurate	sediment		1		0,05 mg/kg		

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77-58-7	(freshwater)		1	
dibutyltin dilaurate	sediment	0,005		
77-58-7	(marine water)	mg/kg		
dibutyltin dilaurate	Soil	0,0407		
77-58-7		mg/kg		
dibutyltin dilaurate	oral	0,2 mg/kg		
77-58-7				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Reaction mass of ethylbenzene and m- xylene and p-xylene	Workers	inhalation	Long term exposure - systemic effects		221 mg/m3	no potential for bioaccumulation
Reaction mass of ethylbenzene and m- xylene and p-xylene	Workers	inhalation	Long term exposure - local effects		221 mg/m3	no potential for bioaccumulation
Reaction mass of ethylbenzene and m- xylene and p-xylene	Workers	dermal	Long term exposure - systemic effects		212 mg/kg	no potential for bioaccumulation
Reaction mass of ethylbenzene and m- xylene and p-xylene	General population	inhalation	Long term exposure - systemic effects		65,3 mg/m3	no potential for bioaccumulation
Reaction mass of ethylbenzene and m- xylene and p-xylene	General population	dermal	Long term exposure - systemic effects		125 mg/kg	no potential for bioaccumulation
Reaction mass of ethylbenzene and m- xylene and p-xylene	General population	oral	Long term exposure - systemic effects		12,5 mg/kg	no potential for bioaccumulation
Reaction mass of ethylbenzene and m- xylene and p-xylene	Workers	inhalation	Acute/short term exposure - systemic effects		442 mg/m3	no potential for bioaccumulation
Reaction mass of ethylbenzene and m- xylene and p-xylene	Workers	inhalation	Acute/short term exposure - local effects		442 mg/m3	no potential for bioaccumulation
Reaction mass of ethylbenzene and m- xylene and p-xylene	General population	inhalation	Acute/short term exposure - systemic effects		260 mg/m3	no potential for bioaccumulation
Reaction mass of ethylbenzene and m- xylene and p-xylene	General population	inhalation	Long term exposure - local effects		65,3 mg/m3	no potential for bioaccumulation
Reaction mass of ethylbenzene and m- xylene and p-xylene	General population	inhalation	Acute/short term exposure - local effects		260 mg/m3	no potential for bioaccumulation
4,4'- methylenediphenyl diisocyanate 101-68-8	Workers	inhalation	Long term exposure - local effects		0,05 mg/m3	no potential for bioaccumulation
4,4'- methylenediphenyl diisocyanate 101-68-8	Workers	inhalation	Acute/short term exposure - local effects		0,1 mg/m3	no potential for bioaccumulation
4,4'- methylenediphenyl diisocyanate 101-68-8	General population	inhalation	Long term exposure - local effects		0,025 mg/m3	no potential for bioaccumulation
4,4'- methylenediphenyl diisocyanate 101-68-8	General population	inhalation	Acute/short term exposure - local effects		0,05 mg/m3	no potential for bioaccumulation
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	Workers	inhalation	Acute/short term exposure - local effects		1 mg/m3	
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	Workers	inhalation	Long term exposure - local effects		0,5 mg/m3	
p-Toluenesulphonyl isocyanate 4083-64-1	Workers	inhalation	Long term exposure - systemic effects		3,24 mg/m3	
p-Toluenesulphonyl isocyanate 4083-64-1	Workers	dermal	Long term exposure - systemic effects		0,92 mg/kg	
p-Toluenesulphonyl isocyanate 4083-64-1	General population	inhalation	Long term exposure - systemic effects		0,8 mg/m3	
p-Toluenesulphonyl isocyanate 4083-64-1	General population	dermal	Long term exposure - systemic effects		0,46 mg/kg	
p-Toluenesulphonyl isocyanate 4083-64-1	General population	oral	Long term exposure - systemic effects		0,46 mg/kg	
dibutyltin dilaurate 77-58-7	Workers	dermal	Acute/short term exposure - systemic effects		2,08 mg/kg	
dibutyltin dilaurate 77-58-7	Workers	Dermal	Long term exposure -		0,43 mg/kg	

			systemic effects		
dibutyltin dilaurate 77-58-7	Workers	inhalation	Long term exposure - systemic effects	0,02 mg/m3	
dibutyltin dilaurate 77-58-7	General population	dermal	Acute/short term exposure - systemic effects	0,5 mg/kg	
dibutyltin dilaurate 77-58-7	General population	inhalation	Acute/short term exposure - systemic effects	0,04 mg/m3	
dibutyltin dilaurate 77-58-7	General population	oral	Acute/short term exposure - systemic effects	0,02 mg/kg	
dibutyltin dilaurate 77-58-7	General population	dermal	Long term exposure - systemic effects	0,16 mg/kg	
dibutyltin dilaurate 77-58-7	General population	inhalation	Long term exposure - systemic effects	0,005 mg/m3	
dibutyltin dilaurate 77-58-7	General population	oral	Long term exposure - systemic effects	0,003 mg/kg	
dibutyltin dilaurate 77-58-7	Workers	inhalation	Acute/short term exposure - systemic effects	0,059 mg/m3	

Biological Exposure Indices:

Ingredient [Regulated	Parameters	Biological	Sampling time	Conc.	Basis of biol.	Remark	Additional
substance]		specimen			exposure index		Information
4,4'-Methylenediphenyl	4,4-	Creatinine in	Sampling time: End of	10 µg/g	DE BAT	BAT values	
diisocyanate	Diaminodiph	urine	shift.			reflect the	
101-68-8	enylmethane					total	
						physical load	
						of workplace	
						substances	
						absorbed	
						through	
						inhalation,	
						dermally,	
						etc. With	
						occupational	
						exposure to MDI,	
						parameter	
						4,4'-	
						Diaminodiph	
						enylmethane	
						(MDA) in	
						the urine	
						covers all	
						components	
						of a complex	
						MDI	
						mixture,	
						since both	
						monomers	
						and	
						oligomers of	
						the MDI are	
						degraded	
						independent	
						of the	
						exposure	
						path of the monomerous	
						MDI. In	
						contrast, the	
						MAK value	
						for MDI	
						takes into	
						account only	
						the monomer	
						MDI portion.	
L	<u>.</u>	1	1	1	1	portion.	L

8.2. Exposure controls:

Engineering controls: Use only in well ventilated areas.

Respiratory protection:

The product should only be used at workplaces with intensive ventilation/extraction.

If intensive ventilation/extraction is not possible respiratory protection equipment with ABEK P2 filter (EN 14387) should be worn.

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection: Goggles which can be tightly sealed. Protective eye equipment should conform to EN166.

Skin protection: Wear protective equipment. Protective clothing that covers arms and legs. Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway), or equivalent.

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Delivery form paste Colour grey Odor Faintly, specific Physical state solid Melting point Not applicable, Determination technically not possible Solidification temperature Not applicable, Product is a solid. Initial boiling point Not applicable, Decomposes > $140^{\circ}C$ (284°F). Flammability The product is not flammable. Explosive limits Not applicable, Product is a solid. Flash point Not applicable, Product is a solid. Auto-ignition temperature Not applicable, Product is a solid. Decomposition temperature Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use Not applicable, Product reacts with water. pН Viscosity (kinematic) Not applicable, Product is a solid. Not available. Viscosity, dynamic 0 Solubility (qualitative) Insoluble (20 °C (68 °F); Solvent: Water) Partition coefficient: n-octanol/water Not applicable Mixture Vapour pressure < 0,1 hPa (20 °C (68 °F)) Density 1,17 - 1,23 g/cm3 QP2107.1; Density (20 °C (68 °F)) Relative vapour density: Not applicable, Product is a solid. Particle characteristics Not applicable, mixture is a paste. 9.2. Other information

9.2.1. Information with regard to physical hazard classes

Flammable Solids Burning rate Burning time

0,26 mm/s 580 s; no method / method unknown

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with water: Pressure built up in closed vessel (CO2). Reaction with water, alcohols, amines.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid Humidity

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

Carbon dioxide is generated under contact with moisture, leading to pressure in the cans. Danger of cans bursting! At higher temperatures isocyanate may be released.

SECTION 11: Toxicological information

General toxicological information:

An allergic reaction cannot be excluded after repeated skin contact.

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

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type	. 5.000 /		
Oxirane, methyl-,	Acute	> 5.000 mg/kg		Expert judgement
polymer with oxirane,	toxicity			
ether with $1,2,3$ -	estimate			
propanetriol (3:1),	(ATE)			
polymer with 1,1'-				
methylenebis[4- isocyanatobenzene]				
59675-67-1				
Hydrocarbons, C11-C12,	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
isoalkanes, < 2%	LD30	> 5.000 mg/kg	Tat	OECD Guidenne 401 (Acute Giai Toxicity)
aromatics				
90622-57-4				
Reaction mass of	LD50	3.523 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))
ethylbenzene and m-	2200	ene ze mig ng		
xylene and p-xylene				
Reaction mass of	Acute	3.523 mg/kg		Expert judgement
ethylbenzene and m-	toxicity	00		1 5 6
xylene and p-xylene	estimate			
	(ATE)			
4,4'- methylenediphenyl	LD50	> 2.000 mg/kg	rat	other guideline:
diisocyanate				
101-68-8				
Hexane, 1,6-diisocyanato-	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
, homopolymer, V=7000-				
11000 mPas/23				
28182-81-2				
4-	LD50	2.330 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral
isocyanatosulphonyltolue				Toxicity)
ne				
4083-64-1				
dibutyltin dilaurate	Acute	500 mg/kg		Expert judgement
77-58-7	toxicity			
	estimate			
	(ATE)			
dibutyltin dilaurate	LD50	500 - 2.000	rat	not specified
77-58-7		mg/kg		

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3- propanetriol (3:1), polymer with 1,1'- methylenebis[4- isocyanatobenzene] 59675-67-1	LD50	> 9.400 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	LD50	> 2.200 - 2.500 mg/kg	rabbit	not specified
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	Acute toxicity estimate (ATE)	2.201 mg/kg		Expert judgement
Reaction mass of ethylbenzene and m- xylene and p-xylene	Acute toxicity estimate (ATE)	1.100 mg/kg		Expert judgement
4,4'- methylenediphenyl diisocyanate 101-68-8	LD50	> 9.400 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Hexane, 1,6-diisocyanato- , homopolymer, V=7000- 11000 mPas/23 28182-81-2	LD50	> 15.800 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
4- isocyanatosulphonyltolue ne 4083-64-1	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
dibutyltin dilaurate 77-58-7	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Test atmosphere	Exposure	Species	Method
CAS-No.	type			time		
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3- propanetriol (3:1), polymer with 1,1'- methylenebis[4- isocyanatobenzene] 59675-67-1	Acute toxicity estimate (ATE)	1,5 mg/l	dust/mist	4 h		Expert judgement
Reaction mass of ethylbenzene and m- xylene and p-xylene	Acute toxicity estimate (ATE)	17,4 mg/l	vapour			Expert judgement
Hexane, 1,6-diisocyanato- , homopolymer, V=7000- 11000 mPas/23 28182-81-2	Acute toxicity estimate (ATE)	1,5 mg/l	dust/mist			Expert judgement

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Hydrocarbons, C11-C12,	mildly		rabbit	equivalent or similar to OECD Guideline 404 (Acute
isoalkanes, < 2%	irritating			Dermal Irritation / Corrosion)
aromatics				
90622-57-4				
Reaction mass of	moderately		rabbit	not specified
ethylbenzene and m-	irritating			
xylene and p-xylene				
4,4'- methylenediphenyl	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
diisocyanate	-			
101-68-8				
Hexane, 1,6-diisocyanato-	slightly	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
, homopolymer, V=7000-	irritating			
11000 mPas/23	-			
28182-81-2				
dibutyltin dilaurate	not corrosive		Human,	OECD Guideline 431 (In Vitro Skin Corrosion:
77-58-7			EpiSkinTM	Reconstructed Human Epidermis (RHE) Test Method)
			(ŜM),	
			Reconstructed	
			Human	
			Epidermis (RHE)	
dibutyltin dilaurate	not irritating		Human,	other guideline:
77-58-7	Ū.		EpiSkinTM	-
			(ŜM),	
			Reconstructed	
			Human	
			Epidermis (RHE)	
dibutyltin dilaurate	not corrosive		Corrositex	OECD Guideline 435 (In Vitro Membrane Barrier Test
77-58-7			Biobarrier	Method for Skin Corrosion)
			Membrane	·
			(reconstituted	
			collagen matrix)	

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Reaction mass of ethylbenzene and m- xylene and p-xylene	moderately irritating		rabbit	not specified
Hexane, 1,6-diisocyanato- , homopolymer, V=7000- 11000 mPas/23 28182-81-2	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
dibutyltin dilaurate 77-58-7	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3- propanetriol (3:1), polymer with 1,1'- methylenebis[4- isocyanatobenzene] 59675-67-1	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3- propanetriol (3:1), polymer with 1,1'- methylenebis[4- isocyanatobenzene] 59675-67-1	sensitising	Respiratory sensitisation	guinea pig	not specified
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	not sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
Reaction mass of ethylbenzene and m- xylene and p-xylene	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
4,4'- methylenediphenyl diisocyanate 101-68-8	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
4,4'- methylenediphenyl diisocyanate 101-68-8	sensitising	Respiratory sensitisation	guinea pig	not specified
Hexane, 1,6-diisocyanato- , homopolymer, V=7000- 11000 mPas/23 28182-81-2	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
dibutyltin dilaurate 77-58-7	Sensitizing	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3- propanetriol (3:1), polymer with 1,1'- methylenebis[4- isocyanatobenzene]	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
59675-67-1					
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	negative	in vitro mammalian chromosome aberration test	with and without		equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	negative	sister chromatid exchange assay in mammalian cells	with and without		equivalent or similar to OECD Guideline 479 (Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells)
Reaction mass of ethylbenzene and m- xylene and p-xylene	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Reaction mass of ethylbenzene and m- xylene and p-xylene	negative	in vitro mammalian chromosome aberration test	with and without		EU Method B.10 (Mutagenicity)
Reaction mass of ethylbenzene and m- xylene and p-xylene	negative	sister chromatid exchange assay in mammalian cells	with and without		EU Method B.19 (Sister Chromatid Exchange Assay In Vitro)
4,4'- methylenediphenyl diisocyanate 101-68-8	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		EU Method B.13/14 (Mutagenicity)
Hexane, 1,6-diisocyanato- , homopolymer, V=7000- 11000 mPas/23 28182-81-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Hexane, 1,6-diisocyanato- , homopolymer, V=7000- 11000 mPas/23 28182-81-2	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Hexane, 1,6-diisocyanato- , homopolymer, V=7000- 11000 mPas/23 28182-81-2	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
4- isocyanatosulphonyltolue ne 4083-64-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
4- isocyanatosulphonyltolue ne 4083-64-1	negative	in vitro mammalian chromosome aberration test	with and without		not specified
dibutyltin dilaurate 77-58-7	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
dibutyltin dilaurate 77-58-7	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
dibutyltin dilaurate 77-58-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-	negative	inhalation		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

propanetriol (3:1), polymer with 1,1'- methylenebis[4- isocyanatobenzene] 59675-67-1				
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	negative		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	negative		rat	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
Reaction mass of ethylbenzene and m- xylene and p-xylene	negative	intraperitoneal	rat	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	negative	inhalation	rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
dibutyltin dilaurate 77-58-7	positive	oral: gavage	mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Reaction mass of ethylbenzene and m- xylene and p-xylene	not carcinogenic	oral: gavage	103 w 5 d/w	rat	male/female	EU Method B.32 (Carcinogenicity Test)
4.4'- methylenediphenyl diisocyanate 101-68-8	carcinogenic	inhalation: aerosol	2 y 6 h/d	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	NOAEL P >= 1.720 mg/kg NOAEL F1 >= 1.720 mg/kg	screening	inhalation	rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
4- isocyanatosulphonyltolue ne 4083-64-1	NOAEL F1 300 mg/kg	one- generation study	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure:

No data available.

STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3- propanetriol (3:1), polymer with 1,1'- methylenebis[4- isocyanatobenzene] 59675-67-1	NOAEL 0,0002 mg/l	inhalation: aerosol	2 years 6 h/d; 5 d/w	rat	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	NOAEL 5.000 mg/kg	oral: gavage	13 weeks daily	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Reaction mass of ethylbenzene and m- xylene and p-xylene	NOAEL 250 mg/kg	oral: gavage	103 w 5 d/w	rat	other guideline:
4,4'- methylenediphenyl diisocyanate 101-68-8	NOAEL 0,0002 mg/l	inhalation: aerosol	main: 2 y; satellite:1 y 6 h/d; 5 d/w	rat	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Aspiration hazard:

The mixture is classified based on Viscosity data.

Hazardous substances CAS-No.	Viscosity (kinematic) Value	Temperature	Method	Remarks
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	0,34 mm2/s	40 °C	not specified	

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3- propanetriol (3:1), polymer with 1,1'-methylenebis[4- isocyanatobenzene] 59675-67-1	LC50	> 1.000 mg/l	96 h	not specified	not specified
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	LL50	> 1.000 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Reaction mass of ethylbenzene and m-xylene and p-xylene	LC50	2,6 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Reaction mass of ethylbenzene and m-xylene and p-xylene	NOEC	> 1,3 mg/l	56 d	Oncorhynchus mykiss	other guideline:
4,4'- methylenediphenyl diisocyanate 101-68-8	LL50	> 100 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hexane, 1,6-diisocyanato-, homopolymer, V=7000-11000 mPas/23 28182-81-2	LC50	> 100 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
4-isocyanatosulphonyltoluene 4083-64-1	LC50	> 45 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
dibutyltin dilaurate 77-58-7	LC50	3,1 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3- propanetriol (3:1), polymer with 1,1'-methylenebis[4- isocyanatobenzene] 59675-67-1	EC50	> 1.000 mg/l	48 h	not specified	not specified
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	EL50	> 1.000 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Reaction mass of ethylbenzene and m-xylene and p-xylene		> 1 mg/l	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	EC50	> 100 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
Hexane, 1,6-diisocyanato-, homopolymer, V=7000-11000 mPas/23 28182-81-2	EC50	> 100 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
4-isocyanatosulphonyltoluene 4083-64-1	EC50	> 100 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
dibutyltin dilaurate 77-58-7	EC50	0,463 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute

Immobilisation Test)

Chronic toxicity (aquatic invertebrates):

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
	NOELR	> 1 mg/l	21 d	1 0	OECD 211 (Daphnia magna, Reproduction Test)
Reaction mass of ethylbenzene and m-xylene and p-xylene	NOEC	1,17 mg/l	7 d	Ceriodaphnia dubia	other guideline:
4,4'- methylenediphenyl diisocyanate 101-68-8	NOEC	10 mg/l	21 d		OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type		-		
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3- propanetriol (3:1), polymer with 1,1'-methylenebis[4- isocyanatobenzene] 59675-67-1	EC50	> 1.640 mg/l	72 h	not specified	not specified
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	EL50	> 1.000 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	NOELR	1.000 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Reaction mass of ethylbenzene and m-xylene and p-xylene	EC50	4,7 mg/l	48 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Reaction mass of ethylbenzene and m-xylene and p-xylene	NOEC	0,44 mg/l	73 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	EL50	> 100 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	NOELR	100 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hexane, 1,6-diisocyanato-, homopolymer, V=7000-11000 mPas/23 28182-81-2	EC0	> 100 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
4-isocyanatosulphonyltoluene 4083-64-1	EC50	30 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
4-isocyanatosulphonyltoluene 4083-64-1	EC10	23 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
dibutyltin dilaurate 77-58-7	IC50	> 3 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
	type				
5 1 5	IC50	> 100 mg/l	3 h	activated sludge	OECD Guideline 209
with oxirane, ether with 1,2,3-					(Activated Sludge,
propanetriol (3:1), polymer					Respiration Inhibition Test)
with 1,1'-methylenebis[4-					
isocyanatobenzene]					
59675-67-1					
4,4'- methylenediphenyl	EC50	> 1.000 mg/l	3 h	activated sludge of a	OECD Guideline 209
diisocyanate				predominantly domestic sewage	(Activated Sludge,
101-68-8					Respiration Inhibition Test)
4-isocyanatosulphonyltoluene	EC 50	2.511 mg/l			OECD Guideline 209
4083-64-1		_			(Activated Sludge,
					Respiration Inhibition Test)
dibutyltin dilaurate	EC50	> 1.000 mg/l	3 h	activated sludge of a	OECD Guideline 209
77-58-7		-		predominantly domestic sewage	(Activated Sludge,
				_	Respiration Inhibition Test)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	not readily biodegradable.	aerobic	31,3 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 90622-57-4	inherently biodegradable	aerobic	72 %	60 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Reaction mass of ethylbenzene and m-xylene and p-xylene	readily biodegradable	aerobic	94 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Hexane, 1,6-diisocyanato-, homopolymer, V=7000-11000 mPas/23 28182-81-2		aerobic	1 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
4-isocyanatosulphonyltoluene 4083-64-1	readily biodegradable	aerobic	83 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
dibutyltin dilaurate 77-58-7	not readily biodegradable.	anaerobic	23 %	39 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

Hazardous substances	Bioconcentratio	Exposure time	Temperature	Species	Method
CAS-No.	n factor (BCF)				
Reaction mass of ethylbenzene	25,9	56 d		Oncorhynchus	other guideline:
and m-xylene and p-xylene				mykiss	
4,4'- methylenediphenyl	92 - 200	28 d		Cyprinus carpio	OECD Guideline 305 E
diisocyanate					(Bioaccumulation: Flow-through
101-68-8					Fish Test)
dibutyltin dilaurate	31 - 155			Cyprinus carpio	OECD Guideline 305
77-58-7					(Bioconcentration: Flow-through
					Fish Test)

12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Reaction mass of ethylbenzene and m-xylene and p-xylene	3,16	20 °C	other guideline:
4,4'- methylenediphenyl diisocyanate 101-68-8	4,51	22 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
4-isocyanatosulphonyltoluene 4083-64-1	0,6	30 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
dibutyltin dilaurate 77-58-7	4,44	20,8 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances	PBT / vPvB
CAS-No.	
Hydrocarbons, C11-C12, isoalkanes, < 2%	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
aromatics	Bioaccumulative (vPvB) criteria.
90622-57-4	
Reaction mass of ethylbenzene and m-xylene	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
and p-xylene	Bioaccumulative (vPvB) criteria.
4,4'- methylenediphenyl diisocyanate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
101-68-8	Bioaccumulative (vPvB) criteria.
Hexane, 1,6-diisocyanato-, homopolymer,	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
V=7000-11000 mPas/23	Bioaccumulative (vPvB) criteria.
28182-81-2	
4-isocyanatosulphonyltoluene	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
4083-64-1	Bioaccumulative (vPvB) criteria.
dibutyltin dilaurate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
77-58-7	Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

080409

SECTION 14: Transport information

14.1.	UN number or 1	ID number
	ADR	Not dangerous goods
	RID	Not dangerous goods
	ADN	Not dangerous goods
	IMDG	Not dangerous goods
	IATA	Not dangerous goods
14.2.	UN proper ship	ping name
	ADR	Not dangerous goods
	RID	Not dangerous goods
	ADN	Not dangerous goods
	IMDG	Not dangerous goods
	IATA	Not dangerous goods
14.3.	Transport haza	rd class(es)
	ADR	Not dangerous goods
	RID	Not dangerous goods
	ADN	Not dangerous goods
	IMDG	Not dangerous goods
	IATA	Not dangerous goods
14.4.	Packing group	
	ADR	Not dangerous goods
	RID	Not dangerous goods
	ADN	Not dangerous goods
	IMDG	Not dangerous goods
	IATA	Not dangerous goods
14.5.	Environmental	hazards
	ADR	not applicable
	RID	not applicable
	ADN	not applicable
	IMDG	not applicable
	IATA	not applicable
14.6.	Special precaut	ions for user
	ADR	not applicable
	RID	not applicable
	ADN	not applicable
	IMDG	not applicable
	IATA	not applicable
14.7.	Maritime trans	port in bulk according to IMO instruments
	not applicable	

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Persistent organic pollutants (Regulation (EU) 2019/1021): Not applicable Not applicable Hexachlorobenzene CAS 118-74-1

VOC content (2010/75/EU)

VOC Paints and Varnishes (EU):

Product (sub)category:

This product is not a subject of the Directive 2004/42/EC

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK:

WGK 1: slightly hazardous to water (Ordinance on facilities for handling substances that are hazardous to water (AwSV)) Classification according to AwSV, Annex 1 (5.2)

BG regulations, rules, infos:

BG data sheet: BGI 524 Hazardous substances: polyurethane production and processing / isocyanates (M 044)): 11

Storage class according to TRGS 510:

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows: H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H312 Harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H360FD May damage fertility. May damage the unborn child. H370 Causes damage to organs. H372 Causes damage to organs through prolonged or repeated exposure. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very
	bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

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