

TEROSON PU 9200 BK

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

Page 1 of 25

SDS No.: 75920

V016.0 Revision: 12.08.2022

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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 Ltd Adhesives Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

ua-productsafety.uk@henkel.com

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

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

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):



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:	P260 Do not breathe dust/fume/spray.
Prevention	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

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

Following substances are present in a concentration >= 0.1% and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in concentration \geq the concentration limit 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		
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-< 0,25 %	Eye Irrit. 2, H319 Skin Sens. 1, H317 Muta. 2, H341 Repr. 1B, H360FD STOT SE 1, H370 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 1 M chronic = 1	

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

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:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

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

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

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

An allergic reaction cannot be excluded after repeated skin contact.

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:

Water jet (solvent-containing product).

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 protective equipment.

Wear self-contained breathing apparatus.

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:

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

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

Great Britain

Ingredient [Regulated substance]	dient [Regulated substance] ppm mg/m³ Value type		Short term exposure limit category / Remarks	Regulatory list	
Polyvinyl chloride 9002-86-2 [Polyvinyl chloride, respirable dust]		4	Time Weighted Average (TWA):		EH40 WEL
Polyvinyl chloride 9002-86-2 [Polyvinyl chloride, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
Di-"isononyl" phthalate		5	Time Weighted Average		EH40 WEL
28553-12-0			(TWA):		EITTO WEE
[Diisononyl phthalate]					
Limestone 1317-65-3 [CALCIUM CARBONATE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [CALCIUM CARBONATE, RESPIRABLE		4	Time Weighted Average (TWA):		EH40 WEL
DUST]					
Limestone 1317-65-3 [LIMESTONE, RESPIRABLE MARBLE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [LIMESTONE, TOTAL INHALABLE MARBLE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [CALCIUM CARBONATE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [CALCIUM CARBONATE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [LIMESTONE, RESPIRABLE MARBLE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [LIMESTONE, TOTAL INHALABLE MARBLE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [Dust, respirable dust]		4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [Dust, respirable dust]		4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
4,4'-Methylenediphenyl diisocyanate		0,02	Time Weighted Average		EH40 WEL

101-68-8		(TWA):		
[ISOCYANATES, ALL (AS -NCO)]				
4,4'-Methylenediphenyl diisocyanate	0,07	Short Term Exposure	15 minutes	EH40 WEL
101-68-8		Limit (STEL):		
[ISOCYANATES, ALL (AS -NCO)]				
Hexane, 1,6-diisocyanato-, homopolymer	0,02	Time Weighted Average		EH40 WEL
28182-81-2		(TWA):		
[ISOCYANATES, ALL (AS -NCO)]				
Hexane, 1,6-diisocyanato-, homopolymer	0,07	Short Term Exposure	15 minutes	EH40 WEL
28182-81-2		Limit (STEL):		
[ISOCYANATES, ALL (AS -NCO)]				
p-Toluenesulphonyl isocyanate	0,02	Time Weighted Average		EH40 WEL
4083-64-1		(TWA):		
[ISOCYANATES, ALL (AS -NCO)]	0.05		145	
p-Toluenesulphonyl isocyanate	0,07	Short Term Exposure	15 minutes	EH40 WEL
4083-64-1		Limit (STEL):		
[ISOCYANATES, ALL (AS -NCO)]	0.1	TT: XX7 : 1 . 1 A	1	EILAO MEL
Dibutyltin dilaurate	0,1	Time Weighted Average		EH40 WEL
77-58-7		(TWA):		
[TIN COMPOUNDS, ORGANIC, EXCEPT CYHEXATIN (ISO), (AS SN)]				
Dibutyltin dilaurate		Skin designation:	Can be absorbed through the	EH40 WEL
77-58-7		Skiii designation.	skin.	EH40 WEL
TIN COMPOUNDS, ORGANIC, EXCEPT			SKIII.	
CYHEXATIN (ISO), (AS SN)]				
Dibutyltin dilaurate	0,2	Short Term Exposure	15 minutes	EH40 WEL
77-58-7	•	Limit (STEL):		
[TIN COMPOUNDS, ORGANIC, EXCEPT		, ,		
CYHEXATIN (ISO), (AS SN)]				

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Polyvinyl chloride 9002-86-2 [POLYVINYL CHLORIDE (PVC)]		1	Time Weighted Average (TWA):		IR_OEL
Polyvinyl chloride 9002-86-2 [POLYVINYL CHLORIDE (PVC)]		10	Time Weighted Average (TWA):		IR_OEL
Di-"isononyl" phthalate 28553-12-0 [Diisononyl phthalate]		5	Time Weighted Average (TWA):		IR_OEL
Limestone 1317-65-3 [CALCIUM CARBONATE]		4	Time Weighted Average (TWA):		IR_OEL
Limestone 1317-65-3 [CALCIUM CARBONATE]		10	Time Weighted Average (TWA):		IR_OEL
Calcium carbonate 471-34-1 [CALCIUM CARBONATE]		4	Time Weighted Average (TWA):		IR_OEL
Calcium carbonate 471-34-1 [CALCIUM CARBONATE]		10	Time Weighted Average (TWA):		IR_OEL
Calcium carbonate 471-34-1 [DUSTS NON-SPECIFIC]		4	Time Weighted Average (TWA):		IR_OEL
Calcium carbonate 471-34-1 [DUSTS NON-SPECIFIC]		10	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS]		6	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS]		2,4	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [DUSTS NON-SPECIFIC]		10	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5		4	Time Weighted Average (TWA):		IR_OEL

[DUSTS NON-SPECIFIC]					
4,4'-Methylenediphenyl diisocyanate	0,005		Time Weighted Average		IR_OEL
101-68-8			(TWA):		
[4,4'-METHYLENE-DIPHENYL					
DIISOCYANATE (AS -NCO)]					
4,4'-Methylenediphenyl diisocyanate		0,02	Time Weighted Average		IR_OEL
101-68-8			(TWA):		
[ISOCYANATES, ALL, EXCEPT					
METHYL ISOCYANATE (CAS NO. 624-					
83-9) AND TOLUENE (2,4 OR 2,6					
DIISOCYANATE (CAS NO. 584-84-9, 91-					
[08-7)]		0.07	CI T F	1.5	ID OFF
4,4'-Methylenediphenyl diisocyanate		0,07	Short Term Exposure	15 minutes	IR_OEL
101-68-8			Limit (STEL):		
[ISOCYANATES, ALL, EXCEPT METHYL ISOCYANATE (CAS NO. 624-					
83-9) AND TOLUENE (2,4 OR 2,6					
DIISOCYANATE (CAS NO. 584-84-9, 91-					
08-7)1					
Hexane, 1,6-diisocyanato-, homopolymer	1	0,02	Time Weighted Average		IR_OEL
28182-81-2		0,02	(TWA):		IK_OLL
[ISOCYANATES, ALL, EXCEPT			(1 111).		
METHYL ISOCYANATE (CAS NO. 624-					
83-9) AND TOLUENE (2,4 OR 2,6					
DIISOCYANATE (CAS NO. 584-84-9, 91-					
08-7)]					
Hexane, 1,6-diisocyanato-, homopolymer		0,07	Short Term Exposure	15 minutes	IR_OEL
28182-81-2			Limit (STEL):		
[ISOCYANATES, ALL, EXCEPT					
METHYL ISOCYANATE (CAS NO. 624-					
83-9) AND TOLUENE (2,4 OR 2,6					
DIISOCYANATE (CAS NO. 584-84-9, 91- 08-7)]					
/3	<u> </u>	0.07	C1	15	ID OEI
p-Toluenesulphonyl isocyanate 4083-64-1		0,07	Short Term Exposure	15 minutes	IR_OEL
[ISOCYANATES, ALL, EXCEPT			Limit (STEL):		
METHYL ISOCYANATE (CAS NO. 624-					
83-9) AND TOLUENE (2,4 OR 2,6					
DIISOCYANATE (CAS NO. 584-84-9, 91-					
08-7)]					
p-Toluenesulphonyl isocyanate		0,02	Time Weighted Average		IR_OEL
4083-64-1			(TWA):		
[ISOCYANATES, ALL, EXCEPT					
METHYL ISOCYANATE (CAS NO. 624-					
83-9) AND TOLUENE (2,4 OR 2,6					
DIISOCYANATE (CAS NO. 584-84-9, 91-					
08-7)]					
Dibutyltin dilaurate		0,2	Short Term Exposure	15 minutes	IR_OEL
77-58-7			Limit (STEL):	Indicative OELV	
[TIN, ORGANIC COMPOUNDS]		10.1	TT: XX : 1 . 1 . 4	I I I OFFI	ID OFF
Dibutyltin dilaurate		0,1	Time Weighted Average	Indicative OELV	IR_OEL
77-58-7			(TWA):		
[TIN, ORGANIC COMPOUNDS]		1		1	

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value	Value			Remarks
	•		mg/l	ppm	mg/kg	others	
4,4'- methylenediphenyl diisocyanate	aqua		0,0037	1	<u> </u>		
101-68-8	(freshwater)		mg/l				
4,4'- methylenediphenyl diisocyanate	aqua		0,037 mg/l				
101-68-8	(intermittent						
	releases)						
4,4'- methylenediphenyl diisocyanate	aqua (marine		0,00037				
101-68-8	water)		mg/l				
4,4'- methylenediphenyl diisocyanate	sediment				11,7 mg/kg		
101-68-8	(freshwater)						
4,4'- methylenediphenyl diisocyanate	sediment				1,17 mg/kg		
101-68-8	(freshwater)						
4,4'- methylenediphenyl diisocyanate	Soil				2,33 mg/kg		
101-68-8							
4,4'- methylenediphenyl diisocyanate	Predator						no potential for
101-68-8	<u> </u>			<u> </u>		<u> </u>	bioaccumulation
Hexane, 1,6-diisocyanato-, homopolymer	sewage		6,46 mg/l				
28182-81-2	treatment plant						
	(STP)						
p-Toluenesulphonyl isocyanate	aqua		0,03 mg/l				
4083-64-1	(freshwater)						
p-Toluenesulphonyl isocyanate	aqua (marine		0,003 mg/l				
4083-64-1	water)						
p-Toluenesulphonyl isocyanate	sewage		0,4 mg/l				
4083-64-1	treatment plant						
	(STP)						
p-Toluenesulphonyl isocyanate	sediment				0,172		
4083-64-1	(freshwater)				mg/kg		
p-Toluenesulphonyl isocyanate	sediment				0,017		
4083-64-1	(marine water)				mg/kg		
p-Toluenesulphonyl isocyanate	Soil				0,017		
4083-64-1					mg/kg		
dibutyltin dilaurate	aqua		0,000463				
77-58-7	(freshwater)		mg/l				
dibutyltin dilaurate	aqua (marine					0,0463 µg/l	
77-58-7	water)						
dibutyltin dilaurate	aqua		0,00463				
77-58-7	(intermittent		mg/l				
	releases)			<u> </u>		<u> </u>	
dibutyltin dilaurate	sediment				0,05 mg/kg		
77-58-7	(freshwater)						
dibutyltin dilaurate	sediment				0,005		
77-58-7	(marine water)			<u> </u>	mg/kg	<u> </u>	
dibutyltin dilaurate	Soil				0,0407		
77-58-7				<u> </u>	mg/kg	<u> </u>	
dibutyltin dilaurate	Sewage		100 mg/l				
77-58-7	treatment plant			<u> </u>		<u> </u>	
dibutyltin dilaurate	oral				0,2 mg/kg		
77-58-7						1	

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	
Reaction mass of ethylbenzene and m- xylene and p-xylene	Workers	inhalation	Long term exposure - local effects		221 mg/m3	
Reaction mass of ethylbenzene and m- xylene and p-xylene	Workers	dermal	Long term exposure - systemic effects		212 mg/kg	
Reaction mass of ethylbenzene and m- xylene and p-xylene	General population	inhalation	Long term exposure - systemic effects		65,3 mg/m3	
Reaction mass of ethylbenzene and m- xylene and p-xylene	General population	dermal	Long term exposure - systemic effects		125 mg/kg	
Reaction mass of ethylbenzene and m- xylene and p-xylene	General population	oral	Long term exposure - systemic effects		12,5 mg/kg	
Reaction mass of ethylbenzene and m-xylene and p-xylene	Workers	inhalation	Acute/short term exposure - systemic effects		442 mg/m3	
Reaction mass of ethylbenzene and m-xylene and p-xylene	Workers	inhalation	Acute/short term exposure - local effects		442 mg/m3	
Reaction mass of ethylbenzene and m-xylene and p-xylene	General population	inhalation	Acute/short term exposure - systemic effects		260 mg/m3	
Reaction mass of ethylbenzene and m-xylene and p-xylene	General population	inhalation	Long term exposure - local effects		65,3 mg/m3	
Reaction mass of ethylbenzene and m-xylene and p-xylene	General population	inhalation	Acute/short term exposure - local effects		260 mg/m3	
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 substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	 Additional Information
4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES (APPLIES TO HDI, IPDI, TDI AND MDI)]	Isocyanate- derived diamine	Creatinine in urine	Sampling time: At the end of the period of exposure.		UKEH40BMG V	
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2 [ISOCYANATES (APPLIES TO HDI, IPDI, TDI AND MDI)]	Isocyanate- derived diamine	Creatinine in urine	Sampling time: At the end of the period of exposure.		UKEH40BMG V	
p-Toluenesulphonyl isocyanate 4083-64-1 [ISOCYANATES (APPLIES TO HDI, IPDI, TDI AND MDI)]	Isocyanate- derived diamine	Creatinine in urine	Sampling time: At the end of the period of exposure.		UKEH40BMG V	

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): Isobutylene-isoprene rubber (IIR; >= 0.7 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Isobutylene-isoprene rubber (IIR; >= 0.7 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

Physical state solid
Delivery form paste
Colour grey

Odor Faintly, specific

Melting point Not applicable, Determination technically not possible

Solidification temperature Not applicable, Product is a solid.

Initial boiling point Not applicable, Decomposes > 140°C (284°F).

Flammability

Explosive limits

Flash point

Auto-ignition temperature

The product is not flammable.

Not applicable, Product is a solid.

Not applicable, Product is a solid.

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

pH Not applicable, Product reacts with water.

Viscosity (kinematic) Not applicable, Product is a solid.

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 0,26 mm/s
Burning time 580 s; no method

9.2.2. Further safety characteristics

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:

Persons suffering from allergic reactions to isocyanates should avoid contact with the product.

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

Acute oral toxicity:

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
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%				
aromatics				
90622-57-4				
Reaction mass of	LD50	3.523 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))
ethylbenzene and m-				
xylene and p-xylene				
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	LD50	2.071 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral
77-58-7				Toxicity)

Acute dermal toxicity:

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
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
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:

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

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)
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
0 ' 1 1					OF CD C : 1 1: 471
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3- propanetriol (3:1), polymer with 1,1'-	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
methylenebis[4- isocyanatobenzene] 59675-67-1					
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
90622-57-4					
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	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	Result / Value	Test type	Route of	Species	Method
CAS-No.			application		
Hydrocarbons, C11-C12,	NOAEL P $>= 1.720 \text{ mg/kg}$	screening	inhalation	rat	OECD Guideline 421
isoalkanes, < 2%					(Reproduction /
aromatics	NOAEL F1 $>= 1.720 \text{ mg/kg}$				Developmental Toxicity
90622-57-4					Screening Test)
4-	NOAEL F1 300 mg/kg	one-	oral: gavage	rat	OECD Guideline 422
isocyanatosulphonyltolue		generation			(Combined Repeated Dose
ne		study			Toxicity Study with the
4083-64-1		-			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	Species	Method
			treatment		
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%	0,34 mm2/s	40 °C	not specified	
aromatics				
90622-57-4				

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.

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	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to 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 to aquatic invertebrates

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydrocarbons, C11-C12,	NOELR	> 1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
isoalkanes, < 2% aromatics					magna, Reproduction Test)
90622-57-4					
Reaction mass of ethylbenzene	NOEC	1,17 mg/l	7 d	Ceriodaphnia dubia	other guideline:
and m-xylene and p-xylene		-		-	
4,4'- methylenediphenyl	NOEC	10 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
diisocyanate					magna, Reproduction Test)
101-68-8					

Toxicity (Algae):

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type		_	1	
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	EC50	> 1 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
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

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 day	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

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

12.4. Mobility in soil

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

12.5. Results of PBT and vPvB assessment

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

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.2. UN proper shipping name

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.3. Transport hazard 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 precautions for user

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Maritime transport 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 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.

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.

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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