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

SDS No. : 180162
V012.0

TEROSON PU 92 BK

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

1.1. Product identifier
TEROSON PU 92 BK

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
1-Component sealant

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

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

Hazard pictogram:	
Contains	Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene] Diphenylmethane diisocyanate, isomers and homologues
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	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust. 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 ≥ 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 ≥ 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- 30 %	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	
Titanium dioxide 13463-67-7 236-675-5 01-2119489379-17	< 5 %	Carc. 2, Inhalation, H351		
Xylene - mixture of isomeres 1330-20-7 215-535-7 01-2119488216-32	< 5 %	Asp. Tox. 1, H304 Acute Tox. 4, Inhalation, H332 Acute Tox. 4, Dermal, H312 Skin Irrit. 2, H315 Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 3, H412	dermal:ATE = 1.700 mg/kg oral:ATE = 3.523 mg/kg inhalation:ATE = 11 mg/l;vapour	EU OEL
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1 918-167-1 01-2119472146-39	< 5 %	Asp. Tox. 1, H304 Flam. Liq. 3, H226	dermal:ATE = 2.201 mg/kg	
4,4'- methylenediphenyl diisocyanate 101-68-8 202-966-0 01-2119457014-47	< 0,5 %	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 %	
methylenediphenyl diisocyanate 26447-40-5 247-714-0 01-2119457015-45	< 0,5 %	Acute Tox. 4, Inhalation, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT RE 2, Inhalation, H373 STOT SE 3, H335 Resp. Sens. 1, H334 Skin Sens. 1, H317	STOT SE 3; H335; C >= 5 % Resp. Sens. 1; H334; C >= 0,1 % Skin Irrit. 2; H315; C >= 5 % Eye Irrit. 2; H319; C >= 5 %	
MDI homopolymer 25686-28-6 500-040-3 500-040-3 01-2119457013-49	< 0,2 %	Acute Tox. 4, Inhalation, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 Carc. 2, H351 STOT RE 2, Inhalation, H373	Resp. Sens. 1; H334; C >= 0,1 % Eye Irrit. 2; H319; C >= 5 % Skin Irrit. 2; H315; C >= 5 % STOT SE 3; H335; C >= 5 %	

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.

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
Store in sealed original container protected against moisture.
Ensure good ventilation/extraction.
Store in a cool, dry place.
Container must be made airtight after use.
Protect from direct sunlight.

7.3. Specific end use(s)
1-Component sealant

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [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
Limestone 1317-65-3 [CALCIUM CARBONATE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [CALCIUM CARBONATE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
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
Di-"isononyl" phthalate 28553-12-0 [Diisononyl phthalate]		5	Time Weighted Average (TWA):		EH40 WEL
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Xylene 1330-20-7 [XYLENE, O-, M-, P- OR MIXED ISOMERS]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Xylene 1330-20-7 [XYLENE, O-, M-, P- OR MIXED ISOMERS]	50	220	Time Weighted Average (TWA):		EH40 WEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	50	221	Time Weighted Average (TWA):	Indicative	ECTLV
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	100	442	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Xylene 1330-20-7 [XYLENE, O-, M-, P- OR MIXED ISOMERS]	100	441	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Carbon black 1333-86-4 [CARBON BLACK]		3,5	Time Weighted Average (TWA):		EH40 WEL
Carbon black 1333-86-4 [CARBON BLACK]		7	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL (AS -NCO)]		0,02	Time Weighted Average (TWA):		EH40 WEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL (AS -NCO)]		0,07	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

Methylenediphenyl diisocyanate 26447-40-5 [ISOCYANATES, ALL (AS -NCO)]		0,02	Time Weighted Average (TWA):		EH40 WEL
Methylenediphenyl diisocyanate 26447-40-5 [ISOCYANATES, ALL (AS -NCO)]		0,07	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6 [ISOCYANATES, ALL (AS -NCO)]		0,02	Time Weighted Average (TWA):		EH40 WEL
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6 [ISOCYANATES, ALL (AS -NCO)]		0,07	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

Occupational Exposure Limits

Valid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m³	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
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
Di-"isononyl" phthalate 28553-12-0 [Diisononyl phthalate]		5	Time Weighted Average (TWA):		IR_OEL
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE]		10	Time Weighted Average (TWA):		IR_OEL
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE]		4	Time Weighted Average (TWA):		IR_OEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS]	50	221	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	50	221	Time Weighted Average (TWA):	Indicative	ECTLV
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	100	442	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS]	100	442	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
Carbon black 1333-86-4 [CARBON BLACK]		3	Time Weighted Average (TWA):		IR_OEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [4,4'-METHYLENE-DIPHENYL DIISOCYANATE (AS -NCO)]	0,005		Time Weighted Average (TWA):		IR_OEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [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)]		0,02	Time Weighted Average (TWA):		IR_OEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL, EXCEPT		0,07	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL

METHYL ISOCYANATE (CAS NO. 624-83-9) AND TOLUENE (2,4 OR 2,6 DIISOCYANATE (CAS NO. 584-84-9, 91-08-7)]					
Methylenediphenyl diisocyanate 26447-40-5 [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	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Methylenediphenyl diisocyanate 26447-40-5 [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)]		0,02	Time Weighted Average (TWA):		IR_OEL
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6 [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)]		0,02	Time Weighted Average (TWA):		IR_OEL
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6 [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	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Xylene - mixture of isomeres 1330-20-7	aqua (freshwater)		0,327 mg/l				
Xylene - mixture of isomeres 1330-20-7	sediment (freshwater)				12,46 mg/kg		
Xylene - mixture of isomeres 1330-20-7	Soil				2,31 mg/kg		
Xylene - mixture of isomeres 1330-20-7	aqua (marine water)		0,327 mg/l				
Xylene - mixture of isomeres 1330-20-7	aqua (intermittent releases)		0,327 mg/l				
Xylene - mixture of isomeres 1330-20-7	sewage treatment plant (STP)		6,58 mg/l				
Xylene - mixture of isomeres 1330-20-7	sediment (marine water)				12,46 mg/kg		
Xylene - mixture of isomeres 1330-20-7	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
methylenediphenyl diisocyanate 26447-40-5	sewage treatment plant (STP)		1 mg/l				
methylenediphenyl diisocyanate 26447-40-5	aqua (freshwater)		1 mg/l				
methylenediphenyl diisocyanate 26447-40-5	aqua (marine water)		0,1 mg/l				
methylenediphenyl diisocyanate 26447-40-5	Soil				1 mg/kg		
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	aqua (freshwater)		1 mg/l				
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	aqua (marine water)		0,1 mg/l				
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	Soil				1 mg/kg		
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	sewage treatment plant (STP)		1 mg/l				
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	aqua (intermittent releases)		10 mg/l				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Titanium dioxide 13463-67-7	Workers	inhalation	Long term exposure - local effects		0,17 mg/m3	
Titanium dioxide 13463-67-7	General population	inhalation	Long term exposure - local effects		0,028 mg/m3	
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Long term exposure - systemic effects		221 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Acute/short term exposure - systemic effects		442 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Long term exposure - local effects		221 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Acute/short term exposure - local effects		442 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	Workers	dermal	Long term exposure - systemic effects		212 mg/kg	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Long term exposure - systemic effects		65,3 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Acute/short term exposure - systemic effects		260 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Long term exposure - local effects		65,3 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Acute/short term exposure - local effects		260 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	dermal	Long term exposure - systemic effects		125 mg/kg	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	oral	Long term exposure - systemic effects		12,5 mg/kg	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
methylenediphenyl diisocyanate 26447-40-5	Workers	inhalation	Long term exposure - local effects		0,05 mg/m3	
methylenediphenyl diisocyanate 26447-40-5	Workers	inhalation	Acute/short term exposure - local effects		0,1 mg/m3	
methylenediphenyl diisocyanate 26447-40-5	General population	inhalation	Acute/short term exposure - local effects		0,05 mg/m3	
methylenediphenyl diisocyanate 26447-40-5	General population	inhalation	Long term exposure - local effects		0,025 mg/m3	
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	Workers	inhalation	Long term exposure - local effects		0,05 mg/m3	
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	Workers	inhalation	Acute/short term exposure - local effects		0,1 mg/m3	
4,4'-Methylenediphenyl diisocyanate, homopolymer	General population	inhalation	Long term exposure - local		0,025 mg/m3	

25686-28-6			effects			
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	General population	inhalation	Acute/short term exposure - local effects		0,05 mg/m3	

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Xylene 1330-20-7 [XYLENE O-, M-, P-, OR MIXED ISOMERS]	Methylhippuric acids	Creatinine in urine	Sampling time: End of shift.		UKEH40BMGV		
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.		UKEH40BMGV		
Methylenediphenyl diisocyanate 26447-40-5 [ISOCYANATES (APPLIES TO HDI, IPDI, TDI AND MDI)]	Isocyanate-derived diamine	Creatinine in urine	Sampling time: At the end of the period of exposure.		UKEH40BMGV		
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6 [ISOCYANATES (APPLIES TO HDI, IPDI, TDI AND MDI)]	Isocyanate-derived diamine	Creatinine in urine	Sampling time: At the end of the period of exposure.		UKEH40BMGV		

8.2. Exposure controls:

Engineering controls:
Use only in well ventilated areas.
Draw off vapors and fumes directly at the point of generation or release. In the case of regular work use bench-mounted extraction equipment.

Respiratory protection:
Suitable breathing mask when there is inadequate ventilation.
Filter : AX (EN 14387)

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): Fluorinated rubber (FKM; >= 0.7 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Fluorinated rubber (FKM; >= 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	black
Odor	of solvent
Melting point	Not available.
Solidification temperature	Not applicable, Product is a solid.
Initial boiling point	Currently under determination
Flammability	Not applicable
Explosive limits	
lower	0,1 %(V); No data available.
upper	7,6 %(V);
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
pH	Not applicable, Product is non-soluble (in water).
Viscosity (kinematic)	Not applicable, Product is a solid.
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Insoluble
Partition coefficient: n-octanol/water	Not applicable Mixture
Vapour pressure (55 °C (131 °F))	100 mbar
Density (20 °C (68 °F))	1,19 g/cm3 QP2107.1; Density
Relative vapour density:	Not applicable, Product is a solid.
Particle characteristics	Currently under determination

9.2. Other information

Other information not applicable for this product

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

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

SECTION 11: Toxicological information

General toxicological information:
Persons suffering from allergic reactions to isocyanates should avoid contact with the product.

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 CAS-No.	Value type	Value	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	Acute toxicity estimate (ATE)	> 5.000 mg/kg		Expert judgement
Titanium dioxide 13463-67-7	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
Xylene - mixture of isomeres 1330-20-7	LD50	3.523 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))
Xylene - mixture of isomeres 1330-20-7	Acute toxicity estimate (ATE)	3.523 mg/kg		Expert judgement
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
4,4'- methylenediphenyl diisocyanate 101-68-8	LD50	> 2.000 mg/kg	rat	other guideline:
methylenediphenyl diisocyanate 26447-40-5	LD50	> 7.616 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
MDI homopolymer 25686-28-6	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)

Acute dermal toxicity:

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

Hazardous substances CAS-No.	Value type	Value	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	LD50	> 9.400 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Titanium dioxide 13463-67-7	LD50	> 10.000 mg/kg	rabbit	not specified
Xylene - mixture of isomeres 1330-20-7	LD50	1.700 mg/kg	rabbit	not specified
Xylene - mixture of isomeres 1330-20-7	Acute toxicity estimate (ATE)	1.700 mg/kg		Expert judgement
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	LD50	> 2.200 - 2.500 mg/kg	rabbit	not specified
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	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)
methylenediphenyl diisocyanate 26447-40-5	LD50	> 9.400 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
MDI homopolymer 25686-28-6	LD50	> 9.400 mg/kg	rabbit	equivalent or similar to 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 CAS-No.	Value type	Value	Test atmosphere	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	Acute toxicity estimate (ATE)	1,5 mg/l	dust/mist	4 h		Expert judgement
Titanium dioxide 13463-67-7	LC50	> 6,82 mg/l	dust	4 h	rat	not specified
Xylene - mixture of isomeres 1330-20-7	LC50	11 mg/l	vapour	4 h	rat	not specified
Xylene - mixture of isomeres 1330-20-7	Acute toxicity estimate (ATE)	11 mg/l	vapour			Expert judgement
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	LC50	> 5,6 mg/l	dust/mist	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/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
Titanium dioxide 13463-67-7	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Xylene - mixture of isomeres 1330-20-7	moderately irritating		rabbit	not specified
4,4'- methylenediphenyl diisocyanate 101-68-8	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
methylenediphenyl diisocyanate 26447-40-5	highly irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
MDI homopolymer 25686-28-6	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / 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
Titanium dioxide 13463-67-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Xylene - mixture of isomeres 1330-20-7	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
methylenediphenyl diisocyanate 26447-40-5	not 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
Titanium dioxide 13463-67-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Titanium dioxide 13463-67-7	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Xylene - mixture of isomeres 1330-20-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	not sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
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
MDI homopolymer 25686-28-6	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
MDI homopolymer 25686-28-6	sensitising	Respiratory sensitisation	rat	not specified

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] 59675-67-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Titanium dioxide 13463-67-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Titanium dioxide 13463-67-7	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Titanium dioxide 13463-67-7	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Titanium dioxide 13463-67-7	negative	in vitro mammalian cell micronucleus test	without		equivalent or similar to OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Xylene - mixture of isomeres 1330-20-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Xylene - mixture of isomeres 1330-20-7	negative	in vitro mammalian chromosome aberration test	with and without		EU Method B.10 (Mutagenicity)
Xylene - mixture of isomeres 1330-20-7	negative	sister chromatid exchange assay in mammalian cells	with and without		EU Method B.19 (Sister Chromatid Exchange Assay In Vitro)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	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 246538-76-1	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 246538-76-1	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 246538-76-1	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)
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)
methylenediphenyl diisocyanate 26447-40-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
MDI homopolymer 25686-28-6	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-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene] 59675-67-1	negative	inhalation		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Titanium dioxide 13463-67-7	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Xylene - mixture of isomeres	negative	intraperitoneal		rat	OECD Guideline 478 (Genetic Toxicology: Rodent Dominant

1330-20-7					Lethal Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	negative			rat	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	negative			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)
MDI homopolymer 25686-28-6	negative	inhalation: aerosol		rat	OECD Guideline 489 (In Vivo Mammalian Alkaline Comet Assay)
MDI homopolymer 25686-28-6	negative	inhalation		rat	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**
Titanium dioxide 13463-67-7	not carcinogenic	oral: feed	103 w daily	rat	male/female	not specified
Xylene - mixture of isomeres 1330-20-7	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)
MDI homopolymer 25686-28-6	carcinogenic	inhalation: aerosol	2 y 6 h/d, 5 d/w	rat	male/female	equivalent or similar 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**
Titanium dioxide 13463-67-7	NOAEL P >= 1.000 mg/kg NOAEL F1 >= 1.000 mg/kg	one-generation study	oral: feed	rat	OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study)
MDI homopolymer 25686-28-6	NOAEL P 2.03 mg/m3 NOAEL F1 2.03 mg/m3	screening	inhalation	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)
Titanium dioxide 13463-67-7	NOAEL > 1.000 mg/kg	oral: gavage	92 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Xylene - mixture of isomeres 1330-20-7	NOAEL 150 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	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)
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)
MDI homopolymer 25686-28-6	NOAEL 0.2 mg/m3	inhalation: aerosol	2 y 6 h/d; 5 d/w	rat	equivalent or similar to 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 246538-76-1	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.

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
Titanium dioxide 13463-67-7	LC50	Toxicity > Water solubility	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Xylene - mixture of isomeres 1330-20-7	LC50	2,6 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Xylene - mixture of isomeres 1330-20-7	NOEC	> 1,3 mg/l	56 d	Oncorhynchus mykiss	other guideline:
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	LL50	> 1.000 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	LL50	> 100 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
methylenediphenyl diisocyanate 26447-40-5	LC50	> 10.000 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	not specified
MDI homopolymer 25686-28-6	LC50	> 1.000 mg/l	96 h	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 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	EC50	> 1.000 mg/l	48 h	not specified	not specified
Titanium dioxide 13463-67-7	EC50	Toxicity > Water solubility	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Xylene - mixture of isomeres 1330-20-7	EC50	3,1 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	EL50	> 1.000 mg/l	48 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)
methylenediphenyl diisocyanate 26447-40-5	EC50	> 1.000 mg/l	24 h	Daphnia magna	not specified
MDI homopolymer 25686-28-6	EC50	129,7 mg/l	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

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				
Titanium dioxide 13463-67-7	NOEC	Toxicity > Water solubility	21 d	Daphnia magna	OECD Guideline 202 (Daphnia sp. Chronic Immobilisation Test)
Xylene - mixture of isomeres 1330-20-7	NOEC	0,96 mg/l	7 d	Ceriodaphnia dubia	other guideline:
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	NOELR	> 1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	NOEC	10 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
MDI homopolymer 25686-28-6	NOEC	10 mg/l	21 d	Daphnia magna	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.

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	EC50	> 1.640 mg/l	72 h	not specified	not specified
Titanium dioxide 13463-67-7	EC50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Titanium dioxide 13463-67-7	NOEC	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Xylene - mixture of isomeres 1330-20-7	EC50	4,36 mg/l	73 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Xylene - mixture of isomeres 1330-20-7	EC10	1,9 mg/l	73 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	EL50	> 1.000 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	NOELR	1.000 mg/l	72 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)
methylenediphenyl diisocyanate 26447-40-5	ErC50	> 100 mg/l	72 h	Desmodesmus subspicatus	not specified
methylenediphenyl diisocyanate 26447-40-5	NOEC	1.640 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	not specified
MDI homopolymer 25686-28-6	EC50	> 1.640 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
MDI homopolymer 25686-28-6	NOEC	1.640 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 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	IC50	> 100 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Titanium dioxide 13463-67-7	EC0	Toxicity > Water solubility	24 h	Pseudomonas fluorescens	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	EC50	> 1.000 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
methylenediphenyl diisocyanate 26447-40-5	EC50	> 100 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
MDI homopolymer 25686-28-6	EC50	> 100 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Xylene - mixture of isomeres 1330-20-7	readily biodegradable	aerobic	90 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	not readily biodegradable.	aerobic	31,3 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	inherently biodegradable	aerobic	72 %	60 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)
methylenediphenyl diisocyanate 26447-40-5	not inherently biodegradable	aerobic	0 %	28 day	OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II))
methylenediphenyl diisocyanate 26447-40-5	not readily biodegradable.	not specified	0 %	28 d	OECD 301 A - F
MDI homopolymer 25686-28-6	not readily biodegradable.	aerobic	> 0 - < 60 %	28 d	OECD 301 A - F
MDI homopolymer 25686-28-6	not inherently biodegradable	aerobic	0 %	28 d	OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II))

12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Xylene - mixture of isomeres 1330-20-7	25,9	56 d		Oncorhynchus mykiss	not specified
4,4'- methylenediphenyl diisocyanate 101-68-8	92 - 200	28 d		Cyprinus carpio	OECD Guideline 305 E (Bioaccumulation: Flow-through Fish Test)
methylenediphenyl diisocyanate 26447-40-5	< 1	112 d		Oncorhynchus mykiss	not specified
MDI homopolymer 25686-28-6	> 92 - 200	28 d		Cyprinus carpio	OECD Guideline 305 E (Bioaccumulation: Flow-through Fish Test)

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Xylene - mixture of isomeres 1330-20-7	3,16	20 °C	not specified
4,4'- methylenediphenyl diisocyanate 101-68-8	4,51	22 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Titanium dioxide 13463-67-7	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.
Xylene - mixture of isomeres 1330-20-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	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.
methylenediphenyl diisocyanate 26447-40-5	Not fulfilling very Persistent and very Bioaccumulative (vPvB) criteria
MDI homopolymer 25686-28-6	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 or 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 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):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EU)	5,9 %

VOC Paints and Varnishes (EU):

Product (sub)category:	This product is not a subject of the Directive 2004/42/EC
max. VOC content:	70,2 g/l

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.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
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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Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.