

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

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#### **TEROSON PU 92 BK**

SDS No. : 180162 V010.0 Revision: 19.08.2020 printing date: 26.11.2020 Replaces version from: 19.06.2020

# **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 Wood Lane End HP2 4RQ Hemel Hempstead

Great Britain

Phone:	+44 1442 278000
Fax-no.:	+44 1442 278071

ua-productsafety.uk@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**

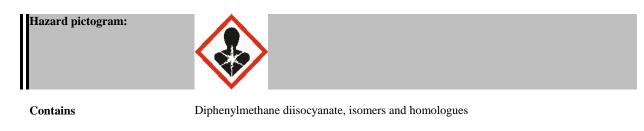
#### 2.1. Classification of the substance or mixture

#### Classification (CLP):

Respiratory sensitizer H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. Category 1

#### 2.2. Label elements

Label elements (CLP):



Signal word:

Danger

Hazard statement:	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Supplemental information	EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
Precautionary statement: Prevention	P261 Avoid breathing mist/vapours. P280 Wear protective gloves.
Precautionary statement: Response	P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

## 2.3. Other hazards

Persons suffering from allergic reactions to isocyanates should avoid contact with the product. Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

# **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

General chemical description: 1-Component moisture-curing sealant Base substances of preparation: PUR polymer

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Titanium dioxide 13463-67-7	236-675-5 01-2119489379-17	1-< 5%	
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	918-167-1 01-2119472146-39	< 2 %	Asp. Tox. 1 H304 Flam. Liq. 3 H226 Aquatic Chronic 4 H413
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
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. 1B H317
methylenediphenyl diisocyanate 26447-40-5	247-714-0	< 0,5 %	Acute Tox. 4; Inhalation H332 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Carc. 2 H351 STOT RE 2 H373 STOT SE 3 H335 Resp. Sens. 1 H334 Skin Sens. 1 H317
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

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/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Polyvinyl chloride 9002-86-2 [POLYVINYL CHLORIDE, INHALABLE		10	Time Weighted Average (TWA):		EH40 WEL
DUST] Polyvinyl chloride		4	Time Weighted Average		EH40 WEL
9002-86-2 [POLYVINYL CHLORIDE, RESPIRABLE		-	(TWA):		
DUST]					
Limestone 1317-65-3 [CALCIUM CARBONATE, INHALABLE		10	Time Weighted Average (TWA):		EH40 WEL
DUST] 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
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]	100	441	Short Term Exposure Limit (STEL):		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
Carbon black 1333-86-4		3,5	Time Weighted Average (TWA):		EH40 WEL
[CARBON BLACK] Carbon black 1333-86-4		7	Short Term Exposure Limit (STEL):		EH40 WEL
[CARBON BLACK] 4,4'-Methylenediphenyl diisocyanate 101-68-8		0,07	Short Term Exposure Limit (STEL):		EH40 WEL
[ISOCYANATES, ALL (AS -NCO)] 4,4'-Methylenediphenyl diisocyanate		0,02	Time Weighted Average		EH40 WEL

101-68-8 [ISOCYANATES, ALL (AS -NCO)]		(TWA):	
Methylenediphenyl diisocyanate 26447-40-5 [ISOCYANATES, ALL (AS -NCO)]	0,07	Short Term Exposure Limit (STEL):	EH40 WEL
Methylenediphenyl diisocyanate 26447-40-5 [ISOCYANATES, ALL (AS -NCO)]	0,02	Time Weighted Average (TWA):	EH40 WEL
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6 [ISOCYANATES, ALL (AS -NCO)]	0,02	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):	EH40 WEL

# **Occupational Exposure Limits**

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Polyvinyl chloride 9002-86-2 [POLYVINYL CHLORIDE (PVC), RESPIRABLE DUST]		1	Time Weighted Average (TWA):		IR_OEL
Polyvinyl chloride 9002-86-2 [POLYVINYL CHLORIDE (PVC), TOTAL INHALABLE DUST]		10	Time Weighted Average (TWA):		IR_OEL
Limestone 1317-65-3 [CALCIUM CARBONATE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		IR_OEL
Limestone 1317-65-3 [CALCIUM CARBONATE, TOTAL INHALABLE DUST]		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, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		IR_OEL
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE, TOTAL INHALABLE DUST]		10	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 (INHALABLE FRACTION)]		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
Methylenediphenyl diisocyanate	İ	0,02	Time Weighted Average		IR_OEL

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

# Predicted No-Effect Concentration (PNEC):

Name on list		Environmental Exposure Compartment period			Value			
		periou	mg/l	ppm	mg/kg	others		
Titanium dioxide	aqua		0		00		no hazard identified	
13463-67-7	(freshwater)							
Titanium dioxide	aqua (marine						no hazard identified	
13463-67-7 Titanium dioxide	water)						no hazard identified	
13463-67-7	sewage treatment plant						no nazard identified	
13+03-07-7	(STP)							
Titanium dioxide	sediment						no hazard identified	
13463-67-7	(freshwater)							
Titanium dioxide	sediment						no hazard identified	
13463-67-7	(marine water)						1 1:1 .:	
Titanium dioxide 13463-67-7	Soil						no hazard identified	
Titanium dioxide	Aquatic						no hazard identified	
13463-67-7	(intermit.							
	releases)							
Titanium dioxide 13463-67-7	Predator						no hazard identified	
Xylene - mixture of isomeres	aqua		0,327 mg/l					
1330-20-7	(freshwater)		,					
Xylene - mixture of isomeres	sediment				12,46			
1330-20-7	(freshwater)				mg/kg			
Xylene - mixture of isomeres 1330-20-7	Soil				2,31 mg/kg			
Xylene - mixture of isomeres	aqua (marine		0,327 mg/l					
1330-20-7	water)							
Xylene - mixture of isomeres	aqua		0,327 mg/l					
1330-20-7	(intermittent releases)							
Xylene - mixture of isomeres	sewage		6,58 mg/l					
1330-20-7	treatment plant		0,00 mg/1					
	(STP)							
Xylene - mixture of isomeres	sediment				12,46			
1330-20-7	(marine water)				mg/kg			
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (freshwater)		1 mg/l					
4,4'- methylenediphenyl diisocyanate	aqua (marine		0,1 mg/l					
101-68-8	water)		0,1 mg/1					
4,4'- methylenediphenyl diisocyanate	Soil				1 mg/kg			
101-68-8								
4,4'- methylenediphenyl diisocyanate	sewage		1 mg/l					
101-68-8	treatment plant							
4,4'- methylenediphenyl diisocyanate	(STP) Air						no hazard identified	
101-68-8	7.11						no nazaru identified	
4,4'- methylenediphenyl diisocyanate	Predator						no potential for	
101-68-8							bioaccumulation	
4,4'- methylenediphenyl diisocyanate	aqua		10 mg/l					
101-68-8	(intermittent							
4,4'-Methylenediphenyl diisocyanate,	releases)		1 mg/l					
homopolymer	aqua (freshwater)		1 mg/1					
25686-28-6	()							
4,4'-Methylenediphenyl diisocyanate,	aqua (marine		0,1 mg/l					
homopolymer	water)							
25686-28-6	0.11				1 "			
4,4'-Methylenediphenyl diisocyanate,	Soil				1 mg/kg			
homopolymer 25686-28-6								
4,4'-Methylenediphenyl diisocyanate,	sewage		1 mg/l					
homopolymer	treatment plant		1					
25686-28-6	(STP)							
4,4'-Methylenediphenyl diisocyanate,	aqua		10 mg/l					
homopolymer	(intermittent							
25686-28-6	releases)	l						

# Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Long term exposure - systemic effects		221 mg/m3	
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Acute/short term exposure - systemic effects		442 mg/m3	
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Long term exposure - local effects		221 mg/m3	
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Acute/short term exposure - local effects		442 mg/m3	
Xylene - mixture of isomeres 1330-20-7	Workers	dermal	Long term exposure - systemic effects		212 mg/kg	
Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Long term exposure - systemic effects		65,3 mg/m3	
Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Acute/short term exposure - systemic effects		260 mg/m3	
Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Long term exposure - local effects		65,3 mg/m3	
Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Acute/short term exposure - local effects		260 mg/m3	
Xylene - mixture of isomeres 1330-20-7	General population	dermal	Long term exposure - systemic effects		125 mg/kg	
Xylene - mixture of isomeres 1330-20-7	General population	oral	Long term exposure - systemic effects		12,5 mg/kg	
4,4'- methylenediphenyl diisocyanate 101-68-8	Workers	inhalation	Long term exposure - local effects		0,05 mg/m3	no hazard identified
4,4'- methylenediphenyl diisocyanate 101-68-8	Workers	inhalation	Acute/short term exposure - local effects		0,1 mg/m3	no hazard identified
4,4'- methylenediphenyl diisocyanate 101-68-8	General population	inhalation	Long term exposure - local effects		0,025 mg/m3	no hazard identified
4,4'- methylenediphenyl diisocyanate 101-68-8	General population	inhalation	Acute/short term exposure - local effects		0,05 mg/m3	no hazard identified
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 25686-28-6	General population	inhalation	Long term exposure - local effects		0,025 mg/m3	
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]	Methylhippur ic acids	Creatinine in urine	Sampling time: End of shift.		UKEH40BMG V		
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		
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.		UKEH40BMG V		
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.		UKEH40BMG V		

#### 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).

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 Appearance paste

	pasty
	black
Odor	of solvent
Odour threshold	No data available / Not applicable
pH	Not available.
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	No data available / Not applicable
Flash point	Not applicable
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	
lower	0,1 %(V)
upper	7,6 %(V)
Vapour pressure	100 mbar
(55 °C (131 °F))	
Relative vapour density:	No data available / Not applicable
Density	1,19 g/cm3
(20 °C (68 °F))	
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative)	Insoluble
(20 °C (68 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Oxidising properties	No data available / Not applicable

## 9.2. Other information

Ignition temperature max. VOC content:

> 200 °C (> 392 °F) 70,2 g/l

# **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 toxicological effects

#### 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
Titanium dioxide 13463-67-7	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	LD50	> 5.000 mg/kg	rat	not specified
Xylene - mixture of isomeres 1330-20-7	LD50	3.523 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))
4,4'- methylenediphenyl diisocyanate 101-68-8	LD50	> 2.000 mg/kg	rat	other guideline:
methylenediphenyl diisocyanate 26447-40-5	LD50	> 2.000 mg/kg	rat	not specified
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	Value	Value	Species	Method
CAS-No.	type			
Titanium dioxide	LD50	>= 10.000	hamster	not specified
13463-67-7		mg/kg		
Hydrocarbons, C11-C12,	LD50	> 5.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute
isoalkanes, < 2%				Dermal Toxicity)
aromatics				
246538-76-1				
Xylene - mixture of	LD50	1.700 mg/kg	rabbit	not specified
isomeres				
1330-20-7				
4,4'- methylenediphenyl	LD50	> 9.400 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
diisocyanate				
101-68-8				
methylenediphenyl	LD50	> 6.200 mg/kg	rabbit	not specified
diisocyanate				
26447-40-5				
MDI homopolymer	LD50	> 9.400 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
25686-28-6				

## 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		
Titanium dioxide	LC50	> 6,82 mg/l	dust	4 h	rat	not specified
13463-67-7						
Xylene - mixture of	LC50	11 mg/l	vapour	4 h	rat	not specified
isomeres						
1330-20-7						

#### 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	equivalent or similar to 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)

## 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)
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	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)
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	Result	Test type	Species	Method
CAS-No.				
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)
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)
Xylene - mixture of isomeres 1330-20-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	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)

# 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
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)
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)
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)
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

# 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	inhalation	24 m 6 h/d; 5 d/w	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
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	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		
Titanium dioxide	NOAEL P > 1.000 mg/kg		oral: gavage	rat	OECD Guideline 421
13463-67-7					(Reproduction /
	NOAEL F1 > 1.000 mg/kg				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
Titanium dioxide 13463-67-7	NOAEL 1.000 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)
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)
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		inhalation: aerosol	2 y (main); 1 y (satellite) 6 h/d; 5 d/w	rat	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

#### Aspiration hazard:

The mixture is classified based on Viscosity data.

Hazardous substances CAS-No.	Viscosity (kinematic) Value	Temperature	Method	Remarks
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	0,34 mm2/s	40 °C	not specified	

# **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	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Titanium dioxide	LC50		48 h	Leuciscus idus	OECD Guideline 203 (Fish,
13463-67-7					Acute Toxicity Test)
Xylene - mixture of isomeres	LC50	2,6 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish,
1330-20-7					Acute Toxicity Test)
4,4'- methylenediphenyl	LC50	> 1.000 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish,
diisocyanate					Acute Toxicity Test)
101-68-8					
methylenediphenyl	LC50	> 10.000 mg/l	96 h	Brachydanio rerio (new name:	not specified
diisocyanate				Danio rerio)	
26447-40-5					
MDI homopolymer	LC50	> 1.000 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish,
25686-28-6					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				
Titanium dioxide	EC50		48 h	Daphnia magna	OECD Guideline 202
13463-67-7					(Daphnia sp. Acute
					Immobilisation Test)
Xylene - mixture of isomeres	EC50	3,1 mg/l	48 h	Daphnia magna	OECD Guideline 202
1330-20-7					(Daphnia sp. Acute
					Immobilisation Test)
4,4'- methylenediphenyl	EC50	129,7 mg/l	24 h	Daphnia magna	OECD Guideline 202
diisocyanate					(Daphnia sp. Acute
101-68-8					Immobilisation Test)
methylenediphenyl	EC50	83 mg/l	48 h	Daphnia magna	not specified
diisocyanate					
26447-40-5					
MDI homopolymer	EC50	129,7 mg/l	24 h	Daphnia magna	OECD Guideline 202
25686-28-6					(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 CAS-No.	Value type	Value	Exposure time	Species	Method
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1	NOEC			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	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Titanium dioxide 13463-67-7	EC50		72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Xylene - mixture of isomeres 1330-20-7	ErC50	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)
4,4'- methylenediphenyl diisocyanate 101-68-8	EC50	> 1.640 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	NOELR	1.640 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methylenediphenyl diisocyanate 26447-40-5	ErC50	> 100 mg/l	72 h	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	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Titanium dioxide 13463-67-7	EC0		24 h	Pseudomonas fluorescens	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm- Test)
Xylene - mixture of isomeres 1330-20-7	EC 50	> 1 - 10 mg/l			not specified
4,4'- methylenediphenyl diisocyanate 101-68-8	EC50	> 100 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
methylenediphenyl diisocyanate 26447-40-5	EC 50	> 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
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics 246538-76-1		aerobic	41,7 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Xylene - mixture of isomeres 1330-20-7	readily biodegradable	aerobic	90 %	28 day	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.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
Xylene - mixture of isomeres 1330-20-7	25,9	56 day		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	LogPow	Temperature	Method
CAS-No.			
Hydrocarbons, C11-C12,	>4		not specified
isoalkanes, < 2% aromatics			
246538-76-1			
Xylene - mixture of isomeres	3,16	20 °C	not specified
1330-20-7			
4,4'- methylenediphenyl	4,51	22 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC
diisocyanate			Method)
101-68-8			

## 12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Titanium dioxide	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not
13463-67-7	be conducted for inorganic substances.
Hydrocarbons, C11-C12, isoalkanes, < 2%	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
aromatics	Bioaccumulative (vPvB) criteria.
246538-76-1	
Xylene - mixture of isomeres	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
1330-20-7	Bioaccumulative (vPvB) criteria.
4,4'- methylenediphenyl diisocyanate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
101-68-8	Bioaccumulative (vPvB) criteria.
MDI homopolymer	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
25686-28-6	Bioaccumulative (vPvB) criteria.

# 12.6. 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 haza	rd class(es)
1 1101	Trunsport nuzu	
	ADR	Not dangerous goods
	RID	Not dangerous goods
	ADN	Not dangerous goods
	IMDG	Not dangerous goods
	IATA	Not dangerous goods
14.4.	Packing group	
	ADR	Not dangerous goods
	RID	Not dangerous goods
	ADN	Not dangerous goods
	IMDG	Not dangerous goods
	IATA	Not dangerous goods
14.5.	Environmental	hazards
	ADR	not applicable
	RID	not applicable
	ADN	not applicable
	IMDG	not applicable
	IATA	not applicable
14.6.	Special precaut	ions for user
	ADR	not applicable
	RID	not applicable
	ADN	not applicable
	IMDG	not applicable
	IATA	not applicable
14.7.	Transport in bu	llk according to Annex II of Marpol and the IBC Code
	not applicable	

# **SECTION 15: Regulatory information**

# **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture** VOC content 5,9 %

VOC content 5,9 % (VOCV 814.018 VOC regulation CH) VOC content 5,9 % (2010/75/EU)

#### VOC Paints and Varnishes (EU):

Product (sub)category:

max. VOC content:

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

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.

H413 May cause long lasting harmful effects to aquatic life.

#### **Further information:**

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