

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

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### **TEROSON PU 92 GY**

SDS No. : 180799 V009.0 Revision: 27.04.2021 printing date: 28.04.2021 Replaces version from: 19.08.2020

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

- **1.1. Product identifier** TEROSON PU 92 GY
- **1.2. Relevant identified uses of the substance or mixture and uses advised against** Intended use:

adhesive and 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 Fax-no.: +44 (1442) 278071

ua-productsafety.uk@henkel.com

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

### 1.4. Emergency telephone number

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

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

#### Classification (CLP):

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

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Diphenylmethane diisocyanate, isomers and homologues

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. As from 24 August 2023 adequate training is required before industrial or professional use. Further information: https://www.feica.eu/PUinfo
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:

Sealant

Base substances of preparation:

Polyurethane prepolymer with free 4,4'-methylenediphenyl diisocyanate (MDI)

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Xylene - mixture of isomeres 1330-20-7	215-535-7 01-2119488216-32	1- < 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
Isoparaffins C9-12 90622-57-4	292-459-0	1-< 2%	Flam. Liq. 3 H226 Asp. Tox. 1; Oral H304 Aquatic Chronic 4 H413
Titanium dioxide 13463-67-7	236-675-5 01-2119489379-17	1- < 3 %	Carc. 2; Inhalation H351
4,4'- methylenediphenyl diisocyanate 101-68-8	202-966-0 01-2119457014-47	0,1-< 1%	Carc. 2 H351 Acute Tox. 4; Inhalation H332 STOT RE 2 H373 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 Resp. Sens. 1 H334 Skin Sens. 1B H317
methylenediphenyl diisocyanate 26447-40-5	247-714-0	0,1- < 1 %	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	0,1- < 1 %	Acute Tox. 4; Inhalation H332 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Resp. Sens. 1 H334 Skin Sens. 1 H337 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. Inform authorities in the event of product spillage to water courses or sewage systems.

#### 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. Storage at 15 to 25°C is recommended. Protect from direct sunlight.

7.3. Specific end use(s)

adhesive and 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 DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Polyvinyl chloride 9002-86-2 [POLYVINYL CHLORIDE, RESPIRABLE DUST]		4	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
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
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
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	1	0,07	Short Term Exposure	15 minutes	EH40 WEL

101-68-8 [ISOCYANATES, ALL (AS -NCO)]		Limit (STEL):		
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]	ent [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)]		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
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
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
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		0,07	Short Term Exposure	15 minutes	IR_OEL

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)]		Limit (STEL):		
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

# Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
	- For the second	F	mg/l	ppm	mg/kg	others	
Xylene - mixture of isomeres	aqua		0,327 mg/l				
1330-20-7 Xylene - mixture of isomeres	(freshwater) 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 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		
Titanium dioxide 13463-67-7	aqua (freshwater)						no hazard identified
Titanium dioxide	aqua (marine						no hazard identified
13463-67-7	water)						
Titanium dioxide 13463-67-7	sewage treatment plant (STP)						no hazard identified
Titanium dioxide 13463-67-7	sediment (freshwater)						no hazard identified
Titanium dioxide 13463-67-7	sediment (marine water)						no hazard identified
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
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (freshwater)		1 mg/l				
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (marine water)		0,1 mg/l				
4,4'- methylenediphenyl diisocyanate 101-68-8	Soil				1 mg/kg		
4,4'- methylenediphenyl diisocyanate 101-68-8	sewage treatment plant (STP)		1 mg/l				
4,4'- methylenediphenyl diisocyanate	Air						no hazard identified
101-68-8 4,4'- methylenediphenyl diisocyanate 101-68-8	Predator						no potential for bioaccumulation
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (intermittent releases)		10 mg/l				
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
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.

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
	grey
Odor	of solvent

#### Odour threshold

pH	No data available / Not applicable
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
(20 °C (68 °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

> 200 °C (> 392 °F)

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

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

### 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!

### No data available / Not applicable

## **SECTION 11: Toxicological information**

### General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following. 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	Value	Value	Species	Method
CAS-No.	type			
Xylene - mixture of	LD50	3.523 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))
isomeres				
1330-20-7				
Isoparaffins C9-12	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
90622-57-4		00		· · · · · · · · · · · · · · · · · · ·
Titanium dioxide	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down
13463-67-7				Procedure)
4,4'- methylenediphenyl	LD50	> 2.000 mg/kg	rat	other guideline:
diisocyanate		00		Ũ
101-68-8				
methylenediphenyl	LD50	> 2.000 mg/kg	rat	not specified
diisocyanate				-
26447-40-5				
MDI homopolymer	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down
25686-28-6				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			
Xylene - mixture of isomeres	LD50	1.700 mg/kg	rabbit	not specified
1330-20-7				
Titanium dioxide 13463-67-7	LD50	>= 10.000 mg/kg	hamster	not specified
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	> 6.200 mg/kg	rabbit	not specified
MDI homopolymer 25686-28-6	LD50	> 9.400 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

### Acute inhalative toxicity:

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

Hazardous substances	Value	Value	Test atmosphere	Exposure	Species	Method
CAS-No.	type			time		
Xylene - mixture of	LC50	11 mg/l	vapour	4 h	rat	not specified
isomeres						
1330-20-7						
Titanium dioxide	LC50	> 6,82 mg/l	dust	4 h	rat	not specified
13463-67-7		-				-

#### Skin corrosion/irritation:

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

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Xylene - mixture of	moderately		rabbit	not specified
isomeres	irritating			
1330-20-7				
Isoparaffins C9-12	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
90622-57-4				
Titanium dioxide	not irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute
13463-67-7				Dermal Irritation / Corrosion)
4,4'- methylenediphenyl	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
diisocyanate				
101-68-8				
methylenediphenyl	highly		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
diisocyanate	irritating			
26447-40-5				

#### 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
Xylene - mixture of isomeres 1330-20-7	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Isoparaffins C9-12 90622-57-4	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Titanium dioxide 13463-67-7	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:

May cause allergy or asthma symptoms or breathing difficulties if inhaled. An allergic reaction cannot be excluded after repeated skin contact.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Xylene - mixture of isomeres 1330-20-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Isoparaffins C9-12 90622-57-4	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
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)
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
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)
Isoparaffins C9-12 90622-57-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Isoparaffins C9-12 90622-57-4	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Isoparaffins C9-12 90622-57-4	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Isoparaffins C9-12 90622-57-4	negative	sister chromatid exchange assay in mammalian cells	with and without		OECD Guideline 479 (Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells)
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)
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
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)
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)
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		
Isoparaffins C9-12	NOAEL P $>= 1.720$ mg/kg	screening	inhalation	rat	OECD Guideline 421
90622-57-4					(Reproduction /
	NOAEL F1 >= 1.720 mg/kg				Developmental Toxicity
					Screening Test)
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
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)
Isoparaffins C9-12 90622-57-4	NOAEL >= 3.000 mg/kg	oral: unspecified	90 d	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Isoparaffins C9-12 90622-57-4	NOAEL >= 1.000 mg/kg	oral: unspecified		rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
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)
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:

No data available.

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### **SECTION 12: Ecological information**

### General ecological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following. 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		_	-	
Xylene - mixture of isomeres 1330-20-7	LC50	2,6 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Titanium dioxide 13463-67-7	LC50	Toxicity > Water solubility	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	LC50	> 1.000 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	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Xylene - mixture of isomeres	EC50	3,1 mg/1	48 h	Daphnia magna	OECD Guideline 202
1330-20-7					(Daphnia sp. Acute
					Immobilisation Test)
Titanium dioxide	EC50	Toxicity > Water	48 h	Daphnia magna	OECD Guideline 202
13463-67-7		solubility			(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	Value	Value	Exposure time	Species	Method
CAS-No.	type				
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				
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)
Titanium dioxide 13463-67-7	EC50	Toxicity > Water solubility	72 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		_		
Xylene - mixture of isomeres 1330-20-7	EC 50	> 1 - 10 mg/l			not specified
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	> 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
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 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	PBT / vPvB
CAS-No.	
Xylene - mixture of isomeres	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
1330-20-7	Bioaccumulative (vPvB) criteria.
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.
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.

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# **SECTION 15: Regulatory information**

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

Ozone Depleting Substance (ODS) (Regulation 1005/2009/EC): Prior Informed Consent (PIC) (Regulation 649/2012/EC): Persistent Organic Pollutants (POPs) (Regulation 2019/1021/EC) : Not applicable Not applicable Not applicable

#### EU. REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC): Contains: Diisononyl phthalate

CAS 28553-12-0

This substance is restricted under Entry 52, Refer to Annex XVII of the REACH Regulation for details of the restriction.

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:

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

#### 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

## **SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text

- of all abbreviations indicated by codes in this safety data sheet are as follows:
  - H226 Flammable liquid and 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.

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