

TEROSON PU 92 GY

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

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SDS No.: 180799 V007.1

Revision: 02.06.2016

printing date: 26.03.2020

Replaces version from: 23.03.2016

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

1.1. Product identifier

TEROSON PU 92 GY

Contains:

4,4'- methylenediphenyl diisocyanate Methylenediphenyl diisocyanate MDI homopolymer

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 Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

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

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Respiratory sensitizer

Category 1

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word: Danger

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Hazard statement: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statement: P261 Avoid breathing mist/vapours. **Prevention** 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)

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Phthalic acid (C7-9) alkylbenzyl ester, linear and branched 68515-40-2	271-082-5 01-2119519234-46	1- < 25 %	Aquatic Chronic 4 H413
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-< 5 %	Flam. Liq. 3 H226 Asp. Tox. 1; Oral H304 Aquatic Chronic 4 H413
4,4'- methylenediphenyl diisocyanate 101-68-8	202-966-0 01-2119457014-47	0,1-< 1 %	Carc. 2 H351 Acute Tox. 4; Inhalation H332 STOT RE 2 H373 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 Resp. Sens. 1 H334 Skin Sens. 1 H317
Methylenediphenyl diisocyanate 26447-40-5	247-714-0 01-2119457015-45	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 H332 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Resp. Sens. 1 H334 Skin Sens. 1 H317 STOT SE 3 H335 STOT RE 2 H373

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	Carc. 2 H351
	11001

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Fresh air, oxygen supply, warmth; seek specialist medical attention.

Delayed effects possible after inhalation.

Skin contact:

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

Eye contact:

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

Ingestion:

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

4.2. Most important symptoms and effects, both acute and delayed

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

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

An allergic reaction cannot be excluded after repeated skin contact.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

Water jet (solvent-containing product).

5.2. Special hazards arising from the substance or mixture

In case of fire toxic gases can be released.

5.3. Advice for firefighters

Wear protective equipment.

Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

Avoid contact with skin and eyes.

Keep unprotected persons away.

6.2. Environmental precautions

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

Inform authorities in the event of product spillage to water courses or sewage systems.

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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.

7.3. Specific end use(s)

adhesive and sealant

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	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]	50	220	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, 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	
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL	
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL	
Carbon black 1333-86-4 [CARBON BLACK]		7	Short Term Exposure Limit (STEL):		EH40 WEL	
Carbon black 1333-86-4 [CARBON BLACK]		3,5	Time Weighted Average (TWA):		EH40 WEL	
4,4'-Methylenediphenyl diisocyanate 101-68-8		0,07	Short Term Exposure Limit (STEL):		EH40 WEL	
[ISOCYANATES, ALL (AS -NCO)] 4,4'-Methylenediphenyl diisocyanate	<u> </u> 	0,02	Time Weighted Average		EH40 WEL	

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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

Occupational Exposure Limits

Valid for Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list	
Polyvinyl chloride 9002-86-2 [POLYVINYL CHLORIDE (PVC), 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	
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS]	50	221	Time Weighted Average (TWA):	Indicative OELV	IR_OEL	
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS]	100	442	Short Term Exposure Limit (STEL):	Indicative OELV	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, 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	
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	
Carbon black 1333-86-4 [CARBON BLACK]		3,5	Time Weighted Average (TWA):		IR_OEL	
Carbon black 1333-86-4 [CARBON BLACK]		7	Short Term Exposure Limit (STEL):		IR_OEL	
4,4'-Methylenediphenyl diisocyanate 101-68-8 [4,4'-METHYLENE-DIPHENYL DIISOCYANATE (AS -NCO)]		0,02	Time Weighted Average (TWA):		IR_OEL	
4,4'-Methylenediphenyl diisocyanate 101-68-8 4,4'-METHYLENE-DIPHENYL DIISOCYANATE (AS -NCO)]		0,07	Short Term Exposure Limit (STEL):		IR_OEL	
Methylenediphenyl diisocyanate 26447-40-5 [ISOCYANATES (ALL, AS -NCO)]		0,02	Time Weighted Average (TWA):		IR_OEL	

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Methylenediphenyl diisocyanate	0,07	Short Term Exposure	IR_OEL
26447-40-5		Limit (STEL):	
[ISOCYANATES (ALL, AS -NCO)]			

$\label{eq:predicted} \textbf{Predicted No-Effect Concentration (PNEC):}$

Name on list	Environmental Compartment	Exposure period	Value				Remarks
	Î	•	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		
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 101-68-8	aqua (intermittent releases)					10 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	aqua (intermittent releases)					10 mg/L	
Methylenediphenyl diisocyanate 26447-40-5	sewage treatment plant (STP)					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	

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Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
1,2-Benzenedicarboxylic acid, benzyl C7-9- branched and linear alkyl esters	Workers	dermal	Long term exposure -		11,67 mg/kg bw/day	
68515-40-2 Xylene - mixture of isomeres 1330-20-7	Workers	Inhalation	systemic effects Acute/short term exposure -		289 mg/m3	
Xylene - mixture of isomeres 1330-20-7	Workers	Inhalation	systemic effects Acute/short term exposure - local effects		289 mg/m3	
Xylene - mixture of isomeres 1330-20-7	Workers	dermal	Long term exposure - systemic effects		180 mg/kg bw/day	
Xylene - mixture of isomeres 1330-20-7	Workers	Inhalation	Long term exposure - systemic effects		77 mg/m3	
Xylene - mixture of isomeres 1330-20-7	general population	Inhalation	Acute/short term exposure - systemic effects		174 mg/m3	
Xylene - mixture of isomeres 1330-20-7	general population	Inhalation	Acute/short term exposure - local effects		174 mg/m3	
Xylene - mixture of isomeres 1330-20-7	general population	dermal	Long term exposure - systemic effects		108 mg/kg bw/day	
Xylene - mixture of isomeres 1330-20-7	general population	Inhalation	Long term exposure - systemic effects		14,8 mg/m3	
Xylene - mixture of isomeres 1330-20-7	Workers	Inhalation	Long term exposure - local effects		77 mg/m3	
Xylene - mixture of isomeres 1330-20-7	general population	oral	Long term exposure - systemic effects		1,6 mg/kg bw/day	
4,4'- methylenediphenyl diisocyanate 101-68-8	Workers	inhalation	Long term exposure - local effects		0,05 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	Workers	inhalation	Acute/short term exposure - local effects		0,1 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	general population	inhalation	Long term exposure - local effects		0,025 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	general population	inhalation	Acute/short term exposure - local effects		0,05 mg/m3	
Methylenediphenyl diisocyanate 26447-40-5	Workers	dermal	Acute/short term exposure - systemic effects		50 mg/kg bw/day	
Methylenediphenyl diisocyanate 26447-40-5	Workers	Inhalation	Acute/short term exposure - systemic effects		0,1 mg/m3	
Methylenediphenyl diisocyanate 26447-40-5	Workers	Inhalation	Acute/short term exposure - local effects		0,1 mg/m3	
Methylenediphenyl diisocyanate 26447-40-5	Workers	dermal	Acute/short term exposure - local effects		28,7 mg/cm2	
Methylenediphenyl diisocyanate 26447-40-5	Workers	Inhalation	Long term exposure - systemic effects		0,05 mg/m3	
Methylenediphenyl diisocyanate 26447-40-5	Workers	Inhalation	Long term exposure - local effects		0,05 mg/m3	
Methylenediphenyl diisocyanate 26447-40-5	general population	dermal	Acute/short term exposure - systemic effects		25 mg/kg bw/day	
Methylenediphenyl diisocyanate 26447-40-5	general population	Inhalation	Acute/short term exposure - systemic effects		0,05 mg/m3	
Methylenediphenyl diisocyanate 26447-40-5	general population	Inhalation	Acute/short term exposure - local		0,05 mg/m3	

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1	1	1	effects	1
Methylenediphenyl diisocyanate 26447-40-5	general population	oral	Acute/short term exposure - systemic effects	20 mg/kg bw/day
Methylenediphenyl diisocyanate 26447-40-5	general population	dermal	Acute/short term exposure - local effects	17,2 mg/cm2
Methylenediphenyl diisocyanate 26447-40-5	general population	Inhalation	Long term exposure - systemic effects	0,025 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	dermal	Acute/short term exposure - systemic effects	50 mg/kg bw/day
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	Workers	Inhalation	Acute/short term exposure - systemic effects	0,1 mg/m3
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	Workers	dermal	Acute/short term exposure - local effects	28,7 mg/cm2
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	Workers	Inhalation	Long term exposure - systemic effects	0,05 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	general population	Inhalation	Long term exposure - local effects	0,025 mg/m3
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	general population	Inhalation	Long term exposure - systemic 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
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	general population	dermal	Acute/short term exposure - local effects	17,2 mg/cm2
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	general population	oral	Acute/short term exposure - systemic effects	20 mg/kg bw/day
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	general population	Inhalation	Acute/short term exposure - systemic effects	0,05 mg/m3
4,4'-Methylenediphenyl diisocyanate, homopolymer 25686-28-6	general population	dermal	Acute/short term exposure - systemic effects	25 mg/kg bw/day

Biological Exposure Indices:

Ingredient [Regulated substance]		Biological specimen	Sampling time	 Basis of biol. exposure index	 Additional Information
Xylene	Methylhippur	Creatinine in	Sampling time: End of	UKEH40BMG	
1330-20-7	ic acids	urine	shift.	V	
[XYLENE O-, M-, P-, OR					
MIXED ISOMERS]					

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)

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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 grey of solvent

Odour threshold No data available / Not applicable

pH No data available / Not applicable Initial boiling point No data available / Not applicable

Flash point Not applicable

Decomposition temperature No data available / Not applicable

Vapour pressure < 100 mbar

(20 °C (68 °F))

Density 1,19 g/cm³

(20 °C (68 °F))

Bulk density

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

Solubility (qualitative) Insoluble

(20 °C (68 °F); Solvent: Water)

Solidification temperature
Melting point
No data available / Not applicable
No data available / Not applicable
Flammability
No data available / Not applicable
Auto-ignition temperature
No data available / Not applicable

Explosive limits

lower 0,1 %(V) upper 7,6 %(V)

Partition coefficient: n-octanol/water

Evaporation rate

Vapor density

Oxidising properties

No data available / Not applicable

9.2. Other information

Ignition temperature $> 200 \, ^{\circ}\text{C} \, (> 392 \, ^{\circ}\text{F})$

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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!

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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.

Sensitizing:

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

An allergic reaction cannot be excluded after repeated skin contact.

Acute oral toxicity:

Hazardous components	Value	Value	Route of	Exposure	Species	Method
CAS-No.	type		application	time		
Phthalic acid (C7-9)	LD50	> 15.800 mg/kg	oral		rat	
alkylbenzyl ester, linear						
and branched						
68515-40-2						
Xylene - mixture of	LD50	3.523 mg/kg	oral		rat	Not specified
isomeres						
1330-20-7						
Isoparaffins C9-12	LD50	> 5.000 mg/kg	oral		rat	OECD Guideline 401 (Acute
90622-57-4						Oral Toxicity)
4,4'- methylenediphenyl	LD50	> 2.000 mg/kg	oral		rat	other guideline:
diisocyanate						
101-68-8						
Methylenediphenyl	LD50	> 2.000 mg/kg	oral		rat	
diisocyanate						
26447-40-5						
MDI homopolymer	LD50	> 5.000 mg/kg	oral		rat	OECD Guideline 425 (Acute
25686-28-6						Oral Toxicity: Up-and-Down
						Procedure)

Acute inhalative toxicity:

Hazaı	rdous components	Value	Value	Route of	Exposure	Species	Method
CAS-	No.	type		application	time		
Xylen	e - mixture of	LC50	11 mg/l	Vapor.	4 h	rat	
isome	res						
1330-	20-7						

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Acute dermal toxicity:

Hazardous components	Value	Value	Route of	Exposure	Species	Method
CAS-No.	type		application	time		
Phthalic acid (C7-9)	LD50	> 7.940 mg/kg	dermal		rat	
alkylbenzyl ester, linear						
and branched						
68515-40-2						
4,4'- methylenediphenyl	LD50	> 9.400 mg/kg	dermal		rabbit	OECD Guideline 402 (Acute
diisocyanate						Dermal Toxicity)
101-68-8						-
Methylenediphenyl	LD50	> 6.200 mg/kg	dermal		rabbit	
diisocyanate						
26447-40-5						
MDI homopolymer	LD50	> 9.400 mg/kg	dermal		rabbit	OECD Guideline 402 (Acute
25686-28-6						Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Xylene - mixture of isomeres 1330-20-7	moderately irritating	ume	rabbit	
Isoparaffins C9-12 90622-57-4	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
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:

Hazardous components 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)
Methylenediphenyl diisocyanate 26447-40-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components	Result	Test type	Species	Method
CAS-No.				
Isoparaffins C9-12 90622-57-4	not sensitising	Guinea pig maximisat ion test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
4,4'- methylenediphenyl diisocyanate 101-68-8	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

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Germ cell mutagenicity:

Hazardous components 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		
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)
	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
	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)
Isoparaffins C9-12 90622-57-4	negative			rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
	negative			mouse	OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal 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)
4,4'- methylenediphenyl diisocyanate 101-68-8	negative	inhalation		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Methylenediphenyl diisocyanate 26447-40-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		

Carcinogenicity:

Hazardous components CAS-No.	Result	Species	Sex	Exposure timeFrequenc	Route of application	Method
				y of treatment		
4,4'- methylenediphenyl diisocyanate 101-68-8	carcinogenic	rat	male/female	2 y 6 h/d	inhalation: aerosol	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
MDI homopolymer 25686-28-6	carcinogenic	rat	male/female	2 y 6 h/d	inhalation: aerosol	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

Hazardous substances CAS-No.	Result / Classification	Species	Exposure time	Species	Method
Isoparaffins C9-12 90622-57-4	NOAEL P = >= 1.720 mg/kg NOAEL F1 = >= 1.720 mg/kg	screening inhalation		rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
4,4'- methylenediphenyl diisocyanate 101-68-8		inhalation: aerosol	main: 2 y; satellite:1 y6 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)

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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

Hazardous components CAS-No.	Value type	Value	Acute Toxicity	Exposure time	Species	Method
0.115 110.	Сурс		Study	· · · · ·		
Xylene - mixture of isomeres 1330-20-7	LC50	86 mg/l	Fish		Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Xylene - mixture of isomeres 1330-20-7	EC50	3,1 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Xylene - mixture of isomeres 1330-20-7	EC50	> 1 - 10 mg/l	Algae		Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Xylene - mixture of isomeres 1330-20-7	EC 50	> 1 - 10 mg/l	Bacteria			
4,4'- methylenediphenyl diisocyanate 101-68-8	LC50	> 1.000 mg/l	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	EC50	129,7 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
4,4'- methylenediphenyl diisocyanate 101-68-8 4,4'- methylenediphenyl	EC 50	> 1.640 mg/l > 100 mg/l	Algae Bacteria	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test) OECD Guideline
diisocyanate 101-68-8	NOEC		chronic	21 d	Donksia magna	209 (Activated Sludge, Respiration Inhibition Test) OECD 211
4,4'- methylenediphenyl diisocyanate 101-68-8	NOEC	> 10 mg/l	Daphnia	21 d	Daphnia magna	(Daphnia magna, Reproduction Test)
Methylenediphenyl diisocyanate 26447-40-5	LC50	> 10.000 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	· ·
Methylenediphenyl diisocyanate 26447-40-5	EC50	> 750 mg/l	Daphnia	24 h	Daphnia pulex	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methylenediphenyl diisocyanate 26447-40-5	EC 50	> 100 mg/l	Bacteria	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
MDI homopolymer 25686-28-6	LC50	> 1.000 mg/l	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)

12.2. Persistence and degradability

Hazardous components	Result	Route of	Degradability	Method
CAS-No.		application		

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Phthalic acid (C7-9) alkylbenzyl ester, linear and branched 68515-40-2	readily biodegradable, but failing 10-day window	aerobic	60 %	OECD 301 A - F
Xylene - mixture of isomeres 1330-20-7	readily biodegradable	aerobic	> 60 %	OECD 301 A - F
4,4'- methylenediphenyl diisocyanate 101-68-8	Not readily biodegradable.	aerobic	0 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Methylenediphenyl diisocyanate 26447-40-5	not inherently biodegradable	aerobic	0 %	OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II))

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components	LogKow	Bioconcentration	Exposure	Species	Temperature	Method
CAS-No.		factor (BCF)	time			
Phthalic acid (C7-9)	6,74				25 °C	
alkylbenzyl ester, linear and						
branched						
68515-40-2						
Xylene - mixture of isomeres		8,5	7 d	Oncorhynchus		
1330-20-7				mykiss		
Xylene - mixture of isomeres	3,12			-		
1330-20-7						
4,4'- methylenediphenyl		92 - 200	28 d	Cyprinus carpio		OECD Guideline 305 E
diisocyanate						(Bioaccumulation: Flow-
101-68-8						through Fish Test)
4,4'- methylenediphenyl	5,22					
diisocyanate						
101-68-8						

12.5. Results of PBT and vPvB assessment

Hazardous components	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.
Isoparaffins C9-12	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
90622-57-4	Bioaccumulative (vPvB) criteria.
4,4'- methylenediphenyl diisocyanate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
101-68-8	Bioaccumulative (vPvB) criteria.
Methylenediphenyl diisocyanate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
26447-40-5	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.

08 04 09 Waste adhesives and sealants containing organic solvents or other dangerous substances

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SECTION 14: Transport information

14.1. UN number

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

14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

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

14.4. Packing group

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

14.5. Environmental hazards

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

14.6. Special precautions for user

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

14.7. Transport in bulk 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 (VOCV 814.018 VOC regulation CH)

VOC Paints and Varnishes (EU):

Product (sub)category:

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

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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:

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.

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.