

SECTION 1: SUBSTANCE/MIXTURE IDENTIFICATION AND MANUFACTURER/SUPPLIER IDENTIFICATION

1.1. Product identification

POLYURETHANE SEALANT PU UK

1.2. Relevant identified uses of the substance or mixture and uses advised against

One component, elastic sealant for applications in automotive industry.

1.3. Data of the safety data sheet supplier

Przedsiębiorstwo RANAL Sp. z o.o.

Ul. Łódzka 3
PL 42-240 Rudniki k. Częstochowy, PL
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Registration number: 000029202

Person responsible for the safety data sheet:
ranal@ranal.pl

1.4. Emergency telephone

+48 34 329-45-03 (7:30am - 03:30pm)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

The mixture was classified as dangerous according to current Regulation EC 1272/2008 (CLP) (and following amendments and annexes). Product requires safety data sheet according to Regulation EC 1907/2006 and following amendments. All the other additional information concerning health and/or environmental hazards to be found in sections 11 and 12 of this Material Safety Data Sheet.

Classification 1272/2008/EC:

Resp. Sens. 1, H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

Contains:
Diphenylmethane diisocyanate, isomers and homologues.

Pictograms:



Warning word: **Danger.**

Risk index:

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

EUH204 Contains isocyanates. May produce an allergic reaction.

Safety index:

P285 In case of insufficient ventilation use individual respiratory protection measures.

P304+P341 IF INHALED: In case of breathing difficulties take the victim outside to the fresh air and ensure comfortable position for breathing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

2.3. Other hazards

No data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

Product identification

POLYURETHANE SEALANT PU UK

POLYURETHANE SEALANT PU UK

Identification		Chemical name/ Classification		Concentration
CAS:	-	Reaction mixture of ethylbenzene, m-xylene and p-xylene		0 – 8.3%
EC:	905-562-9	Regulation 1272/2008	Flam. Liq. 2, H225, Acute Tox. 4, H312, Acute Tox. 4, H332, Asp. Tox. 1, H304, STOT RE 2, H373, Eye Irrit. 2, H319, Skin Irrit. 2, H315, STOT SE 3, H335	
Index:	-			
Reg. No:	01-2119555267-33			
CAS:	1330-20-7	Xylene (benzene <0,01%)		0 – 8.3%
EC:	215-535-7	Regulation 1272/2008	Flam. Liq. 3, H226, Acute Tox. 4, H312, Acute Tox. 4, H332, Asp. Tox. 1, H304, STOT RE 2, H373, Eye Irrit. 2, H319, Skin Irrit. 2, H315, STOT SE 3, H335, Note C	
Index:	601-022-00-9			
Reg. No.:	01-2119488216-32-XXXX			
CAS:	141-78-6	Ethyl acetate		1 – 1.5%
EC:	205-500-4	Regulation 1272/2008	Flam. Liq. 2, H225, Eye Irrit. 2, H319, STOT SE 3, H336, EUH066	
Index:	607-022-00-5			
Reg. No:	01-2119475103-46			
CAS:	9016-87-9	Diphenylmethane diisocyanate, isomers and homologues		0.8 – 0.9%
EC:	-	Regulation 1272/2008	Carc. 2, H351, Acute Tox. 4, H332, STOT RE 2, H373, Eye Irrit. 2, H319, Skin Irrit. 2, H315, STOT SE 3, H335, Resp. Sens. 1 H334, Skin Sens. 1, H317	
Index:	-			
Reg. No:	-			
CAS:	101-68-8	Diphenyl methane-4,4'- diisocyanate		0.6 – 0.7%
EC:	202-966-0	Regulation 1272/2008	Carc. 2, H351, Acute Tox. 4, H332, STOT RE 2, H373, Eye Irrit. 2, H319, Skin Irrit. 2, H315, STOT SE 3, H335, Resp. Sens. 1, H334, Skin Sens. 1, H317, Note 2 C	
Index:	615-005-00-9			
Reg. No:	01-2119457014-47-XXXX			
CAS:	7664-38-2	Phosphoric acid		0 – 0.05%
EC:	231-633-2	Regulation 1272/2008	Skin Corr. 1B, H314, Note B	
Index:	015-011-00-6			
Reg. No:	01-2119485924-24			

Note: The upper value of the range is not included.

Full text of hazard statements (H) provided in section 16 of the Sheet.

Substances with REACH numbers: 01-2119555267-33 and REACH: 01-2119488216-32 are a mixture in various proportions. Maximum percentage of the component, which is included in the final product, is one of the substances. Due to the same classification of both components of the mixture, their final classification, regardless of the mixing ratio, does not change.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eyes:

Remove contact lenses. Immediately rinse wide opened eyes with plenty of water for at least 15 minutes. Consult a doctor.

Skin:

Take off contaminated clothing. Rinse contaminated skin with plenty of lukewarm water. Consult a doctor.

Alimentary tract:

Consult a doctor. Do not induce vomiting, if not advised by a doctor. Do not administer anything if not explicitly recommended by a doctor.

Airways:

Consult a doctor immediately. Take the victim outside to the fresh air, ensure quiet surrounding, in case of no breath ensure artificial respiration.

4.2. Most important symptoms both acute and delayed

See section 11 of the Material Safety Data Sheet.

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

No data available.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

Recommended extinguishing media: carbon dioxide, foam, extinguishing powders. The use of water mist for dispersing flammable vapours released from spilled product protects personnel working to stop the leakage.

Unsuitable extinguishing media:

Do not use jets of water. Water is not efficient in extinguishing the fire, but it can be used to cool closed containers exposed to fire as protection against explosions.

5.2. Special hazards arising from the substance or mixture

Fire exposure hazards:

In containers exposed to fire pressure may increase causing the risk of explosion. Avoid breathing products of breakdown.

5.3. Advice for firefighters

General indications:

Use water jets to cool the containers to avoid breakdown of the product and release of potentially hazardous substances. Fire fighters should be equipped with full set of protective clothing. Collect fire sewage to prevent the leakage into sewage system. Dispose of contaminated water according to current regulations.

Protective equipment:

Suitable protective clothes intended for fire fighting, that is cylinder air apparatus with compressed air and open circuit (EN 137), fire resistant clothes (EN469), fire resistant gloves (EN659) and high footwear for fire fighters (HO A29 or A30).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures

Stop the leakage if there is no danger.

Wear protective clothing and equipment (including personal protective measures – see section 8) to prevent contamination of skin, eyes and personal clothing. These measures are valid for rescue team as well as for all the personnel taking part in the operation.

6.2. Environmental precautions

Prevent leakage into sewage system, ground and surface waters and soil.

6.3. Methods and materials for containment and cleaning up

Pump out released product and place it in a suitable container. If the product is flammable, use explosion preventing equipment. Check compatibility of the material of containers as mentioned in section 10 of the Sheet. Collect the residues using a sorption substance.

Use ventilation in contaminated area. Disposal of contaminated material should be performed according to recommendations given in section 13.

6.4. Reference to other sections

Personal protection measures– see section 8 of the Sheet.

Disposal considerations – see section 13 of the Sheet.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling

Keep away from heat sources, sparks and open flames; do not smoke, do not use matches or a lighter. Vapours may ignite causing an explosion, so avoid accumulation of vapours: open windows and door, ensure cross ventilation. Without suitable ventilation vapours may accumulate over the ground and – if the fire starts – they may catch fire even from a distance, causing the risk of return of the fire. Avoid accumulation of electrostatic charges. When moving the product from large volume packages, ensure continuity of the earthing circuit and use antistatic footwear. Strong movement and strong fluid flow in piping and devices can cause the formation and concentration of electrostatic charges. Prohibited use of compressed air during transport to prevent fire and explosion. Open the containers carefully as they may be under pressure. Do not smoke, eat or drink while using the product. Avoid release of the product to the environment.

7.2. Conditions for safe storage including any incompatibilities

Store only in original container. Store the containers tightly sealed in a well ventilated room, protecting them from direct sunlight. Store in a cool and well aired place, away from heat sources, open flames, sparks and other ignition sources. Store the containers away from incompatible materials, acting according to recommendations provided in section 10 of the Sheet. Storage class TRGS 510 (Germany): 10.

7.3. Special end use(s)

No data available.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION MEASURES

8.1. Control parameters

DEU Deutschland MAK-und BAT-Werte-Liste 2012

ESP España INSHT - Límites de exposición profesional para agentes químicos en España 2015

POLYURETHANE SEALANT PU UK

FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
GRC	Ελλάδα	ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ -ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012
HRV	Hrvatska	NN13/09 - Ministarstvo gospodarstva, rada i poduzetništva
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Databank of the social and Economic Council of Netherlands (SER) Values, AF 2011:18
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 16 grudnia 2011r
SWE	Sverige	Occupational Exposure Limit Values, AF 2011:18
EU	OEL EU	Regulation 2009/161/EU; Regulation 2006/15/EC; Regulation 2004/37/EC; Regulation 2000/39/EC.
	TLV-ACGIH	ACGIH 2016

XYLENE (Benzene <0,01%)

Threshold values

Type	Country	MPC / 8 h		MPIC / 15 min		
		mg/m ³	ppm	mg/m ³	ppm	
AGW	DEU	440	100	880	200	SKIN
MAK	DEU	440	100	880	200	SKIN
VLA	ESP	221	50	442	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	
TLV	GRC	435	100	650	150	
GVI	HRV	221	50	442	100	SKIN
TLV	ITA	221	50	442	100	SKIN
OEL	NLD	210	442			SKIN
NDS	POL	100				
MAK	SWE	221	50	442	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH		434	100	651	150	

Predicted no effect concentration – PNEC

Relevant value in freshwater	0.327	mg/l
Relevant value in marine water	0.327	mg/l
Relevant value for freshwater sediment	12.46	mg/kg
Relevant value for marine water sediment	12.46	mg/kg
Relevant value for water, intermittent release	0.327	mg/l
Relevant value for STP microorganisms	6.58	mg/l
Relevant value for land compartment	2.31	mg/kg

Health – Derived no-effect level – DNEL / DMEL

Way of exposure	Effect on consumers				Effect on workers			
	Acute Local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	1.6 mg/kg/d				
Inhalation			VND	14.8 mg/m ³	289 mg/kg	VND	VND	77 mg/m ³
Dermal			VND	108 mg/kg/d		VND	VND	180 mg/kg/d

REACTION MIXTURE of ETHYLBENZENE, m-XYLENE and p-XYLENE

Threshold value

Type	Country	MPC / 8 h		MPIC / 15 min	
		mg/m ³	ppm	mg/m ³	ppm
TLV-ACGIH		221	50	442	100

Predicted no effect concentration – PNEC

Relevant value in freshwater	0.327	mg/l
Relevant value in marine water	0.327	mg/l
Relevant value for freshwater sediment	12.46	mg/kg
Relevant value for marine water sediment	12.46	mg/kg
Relevant value for water, intermittent release	0.327	mg/l
Relevant value for STP microorganisms	6.58	mg/l
Relevant value for land compartment	2.31	mg/kg

Health – Derived no-effect level - DNEL / DMEL

Way of exposure	Effect on consumers				Effect on workers			
	Acute Local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	1.6 mg/kg/d				
Inhalation			VND	14.8 mg/m ³	289 mg/kg	VND	VND	77 mg/m ³
Dermal			VND	108 mg/kg/d		VND	VND	180 mg/kg/d

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ETHYL ACETATE

Threshold values

Type	Country	MPC / 8 h		MPIC / 15 min	
		mg/m ³	ppm	mg/m ³	ppm
AGW	DEU	1500	400	3000	800
MAK	DEU	1500	400	3000	800
VLA	ESP	1460	400		
VLEP	FRA	1400	400		
WEL	GBR		200		400
TLV	GRC	1400	400		
GVI	HRV		200		400
OEL	NLD	550		110	
NDS	POL	200		600	
MAK	SWE	500	150	1100	300
TLV-ACGIH		1441	400		

Predicted no effect concentration – PNEC

Relevant value in freshwater	0.26	mg/l
Relevant value in marine water	0.026	mg/l
Relevant value for freshwater sediment	1.25	mg/kg
Relevant value for marine water sediment	0.125	mg/kg
Relevant value for water, intermittent release	1.65	mg/l
Relevant value for STP microorganisms	650	mg/l
Relevant value for land compartment	0.24	mg/kg

Health – Derived no-effect level - DNEL / DMEL

Way of exposure	Effect on consumers				Effect on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	4,5 mg/kg				
Inhalation	734 mg/m ³	734 mg/m ³	367 mg/m ³	367 mg/m ³	1468 mg/m ³	1468 mg/m ³	734 mg/m ³	734 mg/m ³
Dermal			VND	37 mg/kg			VND	63 mg/kg

DIPHENYL METHANEDIISOCYANATE, ISOMERS AND HOMOLOGUES

Threshold values

Type	Country	MPC / 8 h		MPIC / 15 min	
		mg/m ³	ppm	mg/m ³	ppm
OEL	NLD		0.005		
TLV-ACGIH			0.005		

DIPHENYL METHANE-4,4'- DIISOCYANATE.

Threshold values

Type	Country	MPC / 8 h		MPIC / 15 min	
		mg/m ³	ppm	mg/m ³	ppm
AGW	DEU	0.05		0.05	
MAK	DEU	0.05		0.05	
MAK	DEU	0.05		0.05	SKIN INHALATION
VLA	ESP	0.052	0.005		
VLEP	FRA	0.1	0.01	0.2	0.02
TLV	GRC	0.2		0.2	
NDS	POL	0.05		0.2	
MAK	SWE	0.03	0.002	0.05 (C)	0.005 (C)
TLV-ACGIH		0.051	0.005		

Predicted no effect concentration – PNEC

Relevant value in freshwater	1.01	mg/l
Relevant value in marine water	0.11	mg/l
Relevant value for STP microorganisms	1.01	mg/l
Relevant value for land compartment	1.01	mg/kg

Health – Derived no-effect level – DNEL / DMEL

Way of exposure	Effect on consumers				Effect on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	20 mg/kg/bw/d						
Inhalation	0,05 mg/m ³	0.05 mg/m ³	0.025 mg/m ³	0.025 mg/m ³	0.1 mg/m ³	0.1 mg/m ³	0.05 mg/m ³	0.05 mg/m ³

POLYURETHANE SEALANT PU UK

Dermal	17.2	25	28.7	50
	mg/m ²	mg/kg/bw/d	mg/cm ²	mg/kg/d

2,2 – DIMORPHOLINODIETHYLETHER

Predicted no effect concentration – PNEC

Relevant value in freshwater	0.1	mg/l
Relevant value in marine water	0.01	mg/l
Relevant value for freshwater sediment	8.2	mg/kg
Relevant value for marine water sediment	0.82	mg/kg
Relevant value for water, intermittent release	1	mg/l
Relevant value for STP microorganisms	100	mg/l
Relevant value for land compartment	1.58	mg/kg

Health – Derived no-effect level – DNEL / DMEL

Way of exposure	Effect on consumers				Effect on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0.5 mg/kg/d				
Inhalation			VND	1.8 mg/m ³			VND	7.28 mg/m ³
Dermal			VND	0.5 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold values

Type	Country	MPC / 8 h		MPIC / 15 min.		
		mg/m ³	ppm	mg/m ³	ppm	
AGW	DEU	2		4		INH.
MAK	DEU	2		4		INH.
VLA	ESP	1		2		
VLEP	FRA	1	0.2	2	0,5	
WEL	GBR	1		2		
TLV	GRC	1		3		
GVI	HRV	1		2		
TLV	ITA	1		2		
OEL	NLD	1		2		
NDS	POL	1		2		
MAK	SWE	1		3		
OEL	EU	1		2		
TLV-ACGIH		1		3		

Legend:

(C) = CEILING; INH = Inhalable fraction; RESPIR = Respirable fraction; TCHAW = Thoracic fraction.

VND = hazard identified, but no DNEL/PNEC available; NEA = no exposure predicted; NPI = no hazard identified.

8.2. Exposure control

As the use of suitable technical equipment has to take priority over personal protective equipment, it necessary to make sure that there is appropriate ventilation in the place of work.

Personal protective equipment needs to be CE labeled as confirmation that it corresponds to all current legal regulations.

Hands protection:

Protective gloves PN-EN 374-3. The choice of material depends on the way of use. In case of short time contact or as protection against plashing, use butyl or nitrile rubber gloves (0.4 mm thick, penetration time <30 min.). In case of constant exposure, use viton gloves (0.4 mm thick, penetration time >30 min.). Remove contaminated gloves.

Skin protection:

Suitable protective clothing (coated, impregnated fabrics, according to Directive 89/686/EEC and standards EN ISO 20344). After removing protective clothing, wash body with water and soap.

Eyes protection:

Tight protective glasses (according to EN 166).

Respiratory protection:

If permissible threshold of one or more components of the substance is exceeded, it is necessary to use A type mask for organic vapours, class (1, 2 or 3) to be evaluated depending on the conditions of use (1000, 5000 or 10000 ppm) (standard EN 14387).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state
Colour

paste
 various

Odour	typical
Odour threshold	no data
pH	no data
Melting/freezing point	no data
Boiling point	no data
Flash point	>200<=0°C
Breakdown point	no data
Evaporation rate	no data
Flammability (solid, gas)	no data
Explosion limits	no data
Vapour pressure	no data
Vapour density (with regard to air)	no data
Density	about 1.26 kg/l
Solubility (in water)	no data
n-octanol/water partition coefficient	no data
Autoignition point	250°C
Viscosity	50000-110000 cps
Explosive properties	no data
Oxidizing properties	no data

9.2. Other information

VOC (Directive 1999/13/EC)	8.18% - 103.07 g/liter
VOC (volatile carbon)	7.11% - 89.53 g/liter

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Product is not reactive in normal conditions.

10.2. Chemical stability

Product stabile under normal conditions.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixtures with air.

10.4. Conditions to be avoided

Take precaution measures against static electricity.
Protect from sunlight and heat sources.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

Toxic gases and potentially hazardous vapours are released as a result of thermal decomposition.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

No experimental data available on the preparation. Evaluation based on the data on dangerous ingredients included in the preparation.

Inhalation of the product causes sensitization which may lead to inflammatory conditions characterized by embolism and affecting respiratory system. Sometimes an allergic reaction comes up with rhinitis and asthma. Respiratory damage depends on inhaled quantity, concentration of the product in the environment and exposure time.

Xylene (mixture of isomers): toxic effect on central nervous system (encephalopathy). Irritating effect on skin, conjunctivas, cornea and respiratory system).

Diphenylmethane diisocyanate, isomers and homologues

LD50 (rat, ingestion)	>10000 mg/kg
LD50 (rabbit, skin)	>9400 mg/kg
LC50 (rat, inhalation)	0.31 mg/l/4h

Xylene (mixture of isomers)

LD50 (rat, ingestion)	3523 mg/kg
LD50 (rabbit, skin)	4350 mg/kg
LC50 (rat, inhalation)	26 mg/l/4h

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Diphenylmethane diisocyanate, isomers and homologues:

LC50 – for fish	>1000 mg/l (96 h) <i>Danio rerio</i>
EC50 – for algae / aquatic plants	>1640 mg/l (72 h) <i>Scenedesmus subspicatus</i>
Chronic toxicity for crustacea NOEC	>10 mg/l <i>Daphnia magna</i>

12.2. Persistence and degradability

Diphenylmethane diisocyanate, isomers and homologues:

No immediate biodegradation.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

On the basis of available data – does not contain PBT or vPvB in quantities higher than 0.1%.

12.6. Other hazardous effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product remains should be treated as hazardous waste. Hazard level should be evaluated on the basis of current regulations. Disposal must be performed by authorized entities and according to current regulations. Avoid littering, contamination of soil, sewage and water courses.

Contaminated container:

A contaminated container should be delivered to an entity authorized to collect, recover or dispose of wastes.

SECTION 14: TRANSPORT INFORMATION

Product is not classified as dangerous according to ADR (International Agreement concerning the International Carriage of Dangerous Goods by Road) and RID (Regulation for International Carriage of Dangerous Goods by Rail), IMDG (International Maritime Dangerous Goods Code), and IATA (International Air Transport Association).

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of December 18 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing the Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94, as well as Directive of the Council 76/769/EEC and Directives of the Commission 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC. Official Journal of European Union L 136 of May 29 2007, L 304 of November 22 2007, L268 of October 09 2008, L 46 of February 17 2009, L164 of June 26 2009, L133/1 of May 31 2010 with later amendments.
- Commission Regulation (EU) No 453/2010 of May 20 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- Regulation of the European Parliament and of the Council (EC) No 1272/2008 of December 16 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No 1907/2006 (Official Journal of the EU L 353 of December 31 2008); L 235 of September 5 2009, L 83 of March 30 2011, L 179 of July 11 2012.

15.2. Chemical safety assessment

Not performed.

SECTION 16: OTHER INFORMATION

Full text of the phrases identifying the types of hazards and R phrases mentioned in sections 2-15:

Flam. Liq. 3	Flammable liquids, cat. 3.
Carc. 2	Carcinogenicity, cat. 2.
Acute Tox. 4	Acute toxicity, cat. 4.
STOT RE 2	Specific target organ toxicity – repeated exposure, cat. 2.

Eye Irrit. 2	Eye irritation, cat. 2.
Skin Irrit. 2	Skin irritation, cat. 2.
STOT SE 3	Specific target organ toxicity – single exposure, cat. 3.
Resp. Sens. 1	Respiratory sensitization, cat. 1.
Skin Sens. 1	Skin sensitization, cat. 1.
H226	Flammable liquid and vapours.
H351	Suspected of causing cancer.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs.
H319	Causes serious eye irritation.
H315	Causes skin irritation, cat. 2.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.

Explanations of the abbreviations and acronyms used in the Material Safety Data Sheet:

CAS no	numerical symbol ascribed to a chemical substance by the American organization Chemical Abstracts Service (CAS).
EC no	a number ascribed to a chemical substance in the European List of Notified Chemical Substances (ELINCS), or a number in the European Inventory of Existing Chemical Substances mentioned in "No-longer polymers" publication (EINECS)
MPC	maximum permissible concentration of health hazardous substances in the work place.
MPIC	maximum permissible instantaneous concentration.
MPCC	maximum permissible ceiling concentration.
PCB	permissible concentration in biological material.
UN number	four-digit identification number of a substance, preparation or product pursuant to UN model regulations.
ADR	European Agreement concerning international road transport of dangerous goods.
RID	Regulation concerning the international transport of dangerous goods by train.
IMDG	International Maritime Code for dangerous goods.
IATA	DGR-International Air Transport Association Dangerous Goods Regulation.

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and later amendments
2. Directive 67/548/EEC and later changes and amendments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 of the European Parliament
8. Regulation (EC) 618/2012 of the European Parliament
9. Merck Index – 10th edition
10. Handling Chemical Safety
11. Niosh – Registry of Toxic Effects of Chemical Substances
12. INRS – Fiche Toxicologique
13. Patty – Industrial Hygiene and Toxicology
14. N.I. Sax – Dangerous properties of Industrial Materials -7, edition 1989
15. ECHA website

Information for users:

Information included in this Safety Data Sheet is based on our knowledge as of the day of the latest issue of the Material Safety Data Sheet. The users should evaluate the information depending on specific use of the product.

This Sheet does not constitute warranty for product characteristic.

When using the product apply current recommendations and regulations concerning occupational health, safety and hygiene.

The producer is not responsible for any improper use of the product.

Personnel using the product should get acquainted with the rules of work with chemical substances.

Changes in the Sheet: General update.

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