

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

1.1. Product identification

POLIURETHANE SEALANT PU UK

UFI: 24V0-W029-U00R-U2VW WHITE, GREY, BEIGE/YELLOW

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

One-component, flexible adhesive/sealant for automotive applications.

Identified uses:	Industrial	Professional	Consumer
Preparation of industrial adhesives and sealants	SU: 10 ERC: 2 PROC: 3, 4, 5, 8a, 8b, 9 PC: 1	-	-
Industrial uses of adhesives and sealants	SU: 17, 19 ERC: 5, 8b PROC: 10, 8a, 8b PC: 1	SU: 17, 19 ERC: 5, 8b PROC: 10, 8a, 8b PC: 1	-
How to use, chemical, industrial laboratory	PROC: 15 PC: 1,21	-	-

1.3. Data of the safety data sheet supplier

Przedsiębiorstwo RANAL Sp. z o.o.

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1.4. Emergency telephone

+48 34 329-45-03 (7:30 - 15:30)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

The mixture is classified as hazardous according to the current regulation EC 1272/2008 (CLP) (and the following amendments and annexes). The product requires a material safety data sheet that complies with the provisions of the Regulation EC 1907/2006 and the following amendments. Any additional information regarding health and/or environmental hazards is provided in sections 11 and 12 of this sheet.

Classification 1272/2008/EC:

Respiratory irritation, category 1, H334 , May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

Warning labelling in accordance with Regulation (CE) 1272/2008 (CLP) as amended.

Contains:

Diphenylmethane-4,4'- diisocyanate.*

Hazard pictograms:



Signal word: **DANGER.**

Risk index:

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

EUH204 Contains isocyanates. May cause an allergic reaction.

EUH211* Warning! Hazardous respirable droplets may form if sprayed. Do not breathe spray or vapour.

Safety index:

P261* Avoid breathing dust/fume/gas/vapours/spray.

P304+P341 IF INHALED: If difficulties in breathing occur, remove the victim to fresh air and keep at rest in a position comfortable for breathing.

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

From August 24, 2023, appropriate training is required prior to industrial or professional use.*

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

The product does not contain substances that disrupt the functioning of the endocrine system in concentrations \geq 0.1%. *

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

Product identification: POLIURETHANE SEALANT PU UK.

Identification		Chemical name/classification		Concentration %
CAS:	13463-67-7	TITANIUM DIOXIDE [as a powder with 1% or more of particles with an aerodynamic diameter of ≤10 µm]*		4.5 ≤ x < 5
EC:	236-675-5	Regulation 1272/2008	Carc. 2, H351, Classification note according to Annex VI to the CLP Regulation: 10, V, W	
Index no:	022-006-00-2			2 ≤ x < 2.5
Reg. No:	--	Regulation 1272/2008	Asp. Tox. 1, H304, EUH066	
CAS:	64771-72-8	C10-C13 - n-PARAFFINGEMISCH. *		1 ≤ x < 1.5
EC:	929-018-5	Regulation 1272/2008		
Index no:	--			1 ≤ x < 1.5
Reg. No:	01-2119475608-26-xxxx	Regulation 1272/2008		
CAS:	28553-12-0	DIISONONYL PHTHALATE*		1 ≤ x < 1.5
EC:	249-079-5	Regulation 1272/2008		
Index no:	--			1 ≤ x < 1.5
Reg. No:	01-2119430798-28	Regulation 1272/2008		
CAS:	77703-56-1	METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA) *		1 ≤ x < 1.5
EC:	416-600-4	Regulation 1272/2008	Aquatic Chronic 4, H413	
Index no:	--			0.89 ≤ x < 1 *
Reg. No:	01-0000016345-72-0008	Regulation 1272/2008		
CAS:	101-68-8	DIPHENYLMETHANE-4,4'- DISOCYANATE		0.89 ≤ x < 1 *
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. Classification note according to Annex VI to the CLP Regulation: 2, C. Skin Irrit. 2, H315: ≥ 5%, Eye Irrit. 2, H319: ≥ 5%, Resp. Sens. 1, H334: ≥ 0,1%, STOT SE 3, H335: ≥ 5% * LC50 Inhalation of mist/dust: 1,5 mg/l/4h*	
Index no:	615-005-00-9			0.3 ≤ x < 0.35
Reg. No:	01-2119457014-47-XXXX	Regulation 1272/2008		
CAS:	2530-83-8	[3-(2,3,-EPOXY)PROPYLENE] *		0.3 ≤ x < 0.35
EC:	219-784-2	Regulation 1272/2008	Skin Corr. 1B, H314, Eye Dam., H318. Classification note according to Annex VI to the CLP Regulation: B.	
Index no:	--			
Reg. No:	01-2119513212-58-0002			

Full text of hazard Symbols provided in Section 16 of the Sheet.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eyes: Remove contact lenses, if present. Rinse immediately with plenty of water for at least 15 minutes, holding the eyelids apart. If symptoms persist, consult a doctor.

Skin: Remove contaminated clothing. Rinse skin with a shower immediately. Immediately call a doctor. Wash contaminated clothes before using them again.

Alimentary tract: Immediately call a doctor. Do not induce vomiting. Do not give anything without your doctor's permission.

Airways: Remove exposed person to fresh air. If the injured person is not breathing, perform CPR. Immediately call a doctor.

4.2. Most important symptoms both acute and delayed

Specific information on symptoms and effects caused by the product is unknown.

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

None.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Recommended extinguishing agents: Common extinguishing media: carbon dioxide, foam, extinguishing powders and water mist. Non-recommended extinguishing media: None.

5.2. Special hazards arising from the substance or mixture

Hazards associated with fire exposure: Avoid breathing decomposition products.

5.3. Advice for fire fighters

General information:

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous to health.

Fire protection equipment should always be used as a complete set. Collect the extinguishing mixture, do not discharge it into the sewage system. Dispose of contaminated water and fire extinguishing residues in accordance with applicable standards.

Protective equipment:

Appropriate clothing intended for firefighting, i.e. open-circuit compressed air breathing apparatus (EN 137), fire-resistant clothing (EN469), fire-resistant gloves (EN659) and high boots for firefighters (HO A29 or A30).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures

Stop the release if there is no hazard.

Use appropriate protective equipment (including personal protective equipment as specified in section 8 of the safety data sheet) to prevent contamination of the skin, eyes and personal clothing. These guidelines apply to persons involved in the trade of the substance, as well as in the event of an emergency.

6.2. Environmental precautions

Avoid entering sewage systems, surface waters and groundwater.

6.3. Methods and materials for containment and cleaning up

Pump out* the released product and pour into an appropriate container. Check the material compatibility of the containers as specified in section 10 of the MSDS. Collect residues using a sorbing agent.

Ventilate the area contaminated by the release. Disposal of contaminated material should be carried out in accordance with the information contained 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

Before handling the product, read all instructions contained in this safety data sheet. Avoid release to the environment. Do not smoke, drink or eat when using the product. Remove contaminated clothing and protective equipment before eating in designated areas.*

7.2. Conditions for safe storage, including any incompatibilities

Store only in original containers. Keep the containers closed in a well-ventilated area, protected from sunlight. Keep the containers away from incompatible materials by following the directions in section 10 of the MSDS.*

Storage class TRGS 510 (Germany): 10.

7.3. Special end use (s)

No data.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

BGR *	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CZE	Česká Republika	Nařízení vlády č. 246/2018 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	TRGS 900 - Seite 1 von 69 (Fassung 29.03.2019)- Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
DNK*	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 – INRS
FIN*	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL – OCH HÄLSOVÅRDSMINISTERIETS PUBLIKATIONER 2020:25
GRC	Ελλάδα	ΕΦΗΜΕΡΙΔΑ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 152 - 21 Αυγούστου 2018
HUN*	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
HRV	Hrvatska	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 91/18)
ITA	Italia	DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017
NOR*	Norge	Forskrift om endring i forskrift om tiltaksverdiar og grenseverdiar for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdiar), 21. august 2018 nr. 1255
POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r.
ROU*	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SWE	Sverige	Hygieniska gränsvärden, AFS 2018:1
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	TLV-ACGIH	ACGIH 2022

[3-(2,3,-epoxy)propylene]trimethoxylate*

Predicted no-effect concentration– PNEC

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Value in fresh water 1 mg/l
 Value in sea water 0.1 mg/l
 Value for fresh water sediments 0,79 mg/kg
 Value for water, intermittent release 1 mg/l
 Value for land compartment 0.13 mg/kg

Health - Derived no-effect level - DNEL / DMEL*								
Route of exposure	Effect on consumers				Effect on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
After inhalation:					VND	147 mg/m ³	VND	147 mg/m ³
Skin					VND	21 mg/kg	VND	21 mg/kg

Soot*:

Threshold Limit Value:

Type	Country	NDS / 8 h mg/m ³	ppm	NDSch / 15 min. mg/m ³	ppm	Notes/Observations
TLV	CZE	2				
MAK	DEU	4				RESP
MAK	DEU	1.5				RESPIR
VLA	ESP	3.5				
VLEP	FRA	3.5				RESPIR
HTP	FIN	3.5		7		
VLEP	ITA	3				RESPIR
TLV	NOR	3.5				
NGV/KGV	SWE	3				
WEL	GBR	3.5		7		RESPIR

Diphenylmethane-4,4'- diisocyanate*

Threshold Limit Value:

Type	Country	NDS / 8 h mg/m ³	ppm	NDSch / 15 min. mg/m ³	ppm	Notes/Observations
TLV	CZE	0.05		0.1		
AGW	DEU	0.05		0.05		
MAK	DEU	0.05		0.05		RESPIR
MAK	DEU	0.05		0.05		SKIN
TLV	DNK	0.05	0.005	0.1	0,01	
VLA	ESP	0.052	0.005			
VLEP	FRA	0.1	0.01	0.2	0,02	
TLV	GRC	0.2		0.2		
AK	HUN	0.05		0.05		
TLV	NOR	0.05	0.005			
NDS/NDSch	POL	0.05		0.2		
NGV/KGV	SWE	0.03	0.002	0.05 (C)	0,005 (C)	
NPEL	SVK	0.05		0.05		
	TLV-ACGIH	0.051	0.005			

Predicted no-effect concentration- PNEC*:

Value in fresh water 1 mg/l
 Value in sea water 0.1 mg/l
 Value for water, intermittent release 10 mg/l
 Value for microorganisms STP 1 mg/l
 Value for land compartment 1 mg/kg

Health - Derived no-effect level - DNEL / DMEL*								
Route of exposure	Effect on consumers				Effect on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
After inhalation:	0.05 mg/m ³	0.05	0.025 mg/m ³	0.025 mg/m ³	0.1 mg/m ³		0.05 mg/m ³	

Methylene-bis-4,1-(n-phenylene-n'-butylurea) *

Predicted no-effect concentration- PNEC:

Value in fresh water 0.1 mg/l
 Value in sea water 0.01 mg/l
 Value for fresh water sediments 76.36 mg/kg/d
 Value for fresh water sediments 7.636 mg/kg/d
 Value for water, intermittent release 1 mg/l
 Value for microorganisms STP 10 mg/l
 value for the food chain (secondary poisoning) NEA
 Value for land compartment 15.15 mg/kg

Health - Derived no-effect level - DNEL / DMEL*								
Route 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		NPI		5 mg/kg bw/d				
After inhalation:	NPI	NPI	NPI	7.4 mg/m ³	NPI	NPI	NPI	49.37 mg/m ³
Skin	NPI	NPI	NPI	50 mg/kg bw/d	NPI	NPI	NPI	140 mg/kg bw/d

Titanium Titanium *[as a powder with 1% or more of particles with an aerodynamic diameter of ≤10 µm]

Threshold Limit Value:

Type	Country	NDS / 8 h mg/m ³	ppm	NDSch / 15 min. mg/m ³	ppm	Notes/Observations
TLV	BGR	10				RESPIR
TLV	DNK	6				Som Ti
VLA	ESP	10				
VLEP	FRA	10				
TLV	GRC		10			
GVI/KGVI	HRV	10				INH
GVI/KGVI	HRV	4				RESPIR
TLV	NOR	5				
NDS/NDSch	POL	10				INH
TLV	ROU	10		15		
NGV/KGV	SWE	5				Totaldamm
NPEL	SVK	5				
WEL	GBR		10			INH
WEL	GBR	4				RESPIR
TLV-ACGIH	0,2					RESPIR

Diisonyl phthalate*

Threshold Limit Value:

Type	Country	NDS / 8 h mg/m ³	ppm	NDSch / 15 min. mg/m ³	ppm	Notes/Observations
TLV	CZE	3	0.171	10	0.57	
TLV	DNK	3				
GVI/KGVI	HRV	5				
NGV/KGV	SWE	3		5 (C)		
WEL	GBR	5				

Legend:
(C) = CEILING; INH= Inhalable Fraction; RESPIR = Respirable Fraction; THOR = Thoracic Fraction
VND = hazard identified but no DNEL/PNEC available; NEA = no exposure expected; NPI = no hazard identified.
LOW = low danger ; MED = medium danger; HIGH = high danger.*

8.2. Exposure control

Assuming that the use of appropriate engineering measures over personal protective equipment is a priority, ensure efficient ventilation in the workplace by using an effective local exhaust system.
When selecting personal protective equipment, seek advice from the supplier of chemical products if necessary.
Personal protective equipment should be marked with the CE mark that meets the requirements of applicable standards.

Hands protection:

Use work gloves, category III (standard reference EN 374). The type of use should be assessed for the final choice of material.
For the final choice of the glove material, evaluate the type of use. For short-term contact or as protection against occasional contact, use nitrile gloves (thickness 0.3 mm, penetration time >480 min.).*
In case of continued exposure use butyl rubber gloves (thickness 0.4 mm, breakthrough time >480 min.).
Contaminated gloves should be disposed of.

Skin protection:

Wear protective clothing with long sleeves and professional safety footwear of category I in accordance with Regulation I (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.*

Eyes protection:

It is recommended to use safety glasses in a tight housing (see standard EN 166).

Respiratory protection:

If the threshold value (e.g. TLV-TWA) of one or more substances contained in the product is exceeded, it is recommended to use a mask with a type A filter for organic vapours, class (1, 2 or 3). Should be selected depending on the permissible use concentration (1000, 5000 or 10000 ppm) (ref. standard EN 14387).

Environmental control:

Emissions from ventilation equipment and work processes must be measured in accordance with environmental regulations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties*

Properties	Value	Information
Physical state	paste	
Colour	various	
Odour	typical	
Odour threshold	not specified	
Melting/freezing point	unavailable	Reason for missing data: Determination is not technically possible.
Initial boiling point*	not applicable	Reason for missing data: Determination is not technically possible.
Boiling range	unavailable	Reason for missing data: Determination is not technically possible.

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Flammability (solid, gas):	non-flammable:	method: A10 EC Regulation 440/2008
Bottom, top explosion limit*	not applicable	
Flash point	not applicable	
Auto ignition point	unavailable*	
Breakdown point	not applicable*	
pH	not applicable*	Reason for missing data: the mixture is not soluble in water*
Kinematic viscosity	not available*	
Dynamic viscosity	110000- 165000 cps*	method: UNI EN ISO 3219 Rotational viscometer*
Solubility (in water)	insoluble in water *	
n-octanol/water partition coefficient	not applicable*	
Vapour pressure	unavailable	
Density and/or relative density*	app 1,36- 1,41 kg/l*	Method: ISO 1183-1 A *
Vapour density	unavailable	
Particle characteristics*	not applicable	

9.2. Other information

Information with regard to physical hazard classes*:
None.

Other safety features*:
Evaporation rate not applicable
VOC (Directive 2010/75/EC): 2.00 %
Explosive properties not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Under recommended conditions of use, there are no particular risks of reaction with other substances.*

10.2. Chemical stability

The product is stable under recommended conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are expected under the recommended conditions of use and storage.*

10.4. Conditions to be avoided

None. However, follow the safety rules for chemicals.*

10.5. Incompatible materials

None.*

10.6. Hazardous decomposition products

None.*

SECTION 11: TOXICOLOGICAL INFORMATION

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. For this reason it is necessary to provide information on the health effects for the concentrations of dangerous substances indicated in Section 3, separately for each substance. *

11.1. Information on the hazard classes defined in Regulation (EC) No 1272/2008*

Metabolism, toxicokinetics, mechanism of action and other information: None.

Information on possible routes of exposure: Warning! Hazardous respirable droplets may form if sprayed. Do not breathe spray or vapour.*

Delayed and immediate effects and chronic effects from short and long-term exposure: None.

Interaction effects: None.

Acute toxicity:

ATE (Inhalation) of the mixture: Not classified (no significant component)*

ATE (Oral) of the mixture: Not classified (no significant component)*

ATE (Dermal) of the mixture: Not classified (no significant component)*

[3-(2,3,-epoxy)propylene]trimethoxylate*

4250 mg/LD50 (Dermal): kg Oryctolagus sp.

LD50 (Oral): 8025 mg/kg Rattus sp.

LC50 (Inhalation vapours): 5,3 mg/l Rattus sp.

C10-C13 - n-PARAFFINGEMISCH*

LD50 (Dermal): > 2000 mg/kg Oryctolagus sp.

LD50 (Oral): > 2000 mg/kg Rattus sp.

LC50 (Inhalation vapours): > 5 mg/l Rattus sp.

Diphenylmethane-4,4'- diisocyanate

LD50 (Oral) >2000 mg/kg Rattus sp.

LD50 (Dermal) > 9400 mg/kg Oryctolagus sp.

LC50 (Inhalation) 1.5 mg/l/4h Rattus sp.

Methylene-bis-4,1-(n-phenylene-n'-butylurea) *

LD50 (Dermal): > 2000 mg/kg Rattus sp.

LD50 (Oral): > 2000 mg/kg Rattus sp.

Titanium Titanium *[as a powder with 1% or more of particles with an aerodynamic diameter of ≤10 µm]

LD50 (Oral): > 10000 mg/kg Rat

Diisonyl phthalate*

LD50 (Dermal): > 3160 mg/kg Rabbit - New Zealand white

LD50 (Oral): > 10000 mg/kg Rat - Sprague-Dawley

LC50 (Inhalation vapours): >4.4 mg/l/ 4h Rat - Sprague-Dawley

Skin corrosion/irritation: Does not meet the classification criteria for this hazard class.

Serious eye damage/eye irritation: Does not meet the classification criteria for this hazard class.

Allergic effect on airways or skin: Causes respiratory irritation.

Mutagenic effect on germ cells: Does not meet the classification criteria for this hazard class.

Carcinogenic effect: Does not meet the classification criteria for this hazard class.

Titanium Titanium[as a powder with 1% or more of particles with an aerodynamic diameter of ≤10 µm]*

The classification as an inhalation carcinogen applies only to mixtures in the form of a powder containing 1 % or more of titanium dioxide in the form of particles with an aerodynamic diameter of ≤ 10 µm or incorporated in such particles.

Harmful effect on reproduction: Does not meet the classification criteria for this hazard class.

Specific target organ toxicity – single exposure: Does not meet the classification criteria for this hazard class.

Specific target organ toxicity – repeated exposure: Does not meet the classification criteria for this hazard class.

Aspiration hazard: Does not meet the classification criteria for this hazard class.

11.2. Information on other hazards*

Based on available data, the product does not contain a substance listed on the main European lists of potential or suspected endocrine disruptors for which their impact on human health is under evaluation.*

SECTION 12: ECOLOGICAL INFORMATION

When using the preparation, follow the principles of good industrial practice, avoiding discharge to the environment. If the product enters watercourses or contaminates soil or vegetation, notify the appropriate authorities. *

12.1. Toxicity

[3-(2,3,-epoxy)propylene]trimethoxylate*

LC50 - Fish 55 mg/l/96h Cyprinus carpio

EC50 - Crustaceans 324 mg/l/48h Daphnia magna

NOEC chronic Algae/Aquatic plants < 50 mg/l Anabaena sp.

Diphenylmethane-4,4'- diisocyanate:

LC50 - Fish > 1000 mg/l/96h Danio rerio

EC50 - algae / Aquatic Plants > 1640 mg/l/72h Scenedesmus subspicatus

NOEC chronic Crustaceans >10 mg/l Daphnia magna

NOEC chronic Algae/Aquatic plants 1640 mg/l Desmodesmus subspicatus

Methylene-bis-4,1-(n-phenylene-n'-butylurea) *

LC50 - Fish > 250 mg/l/96h Danio rerio

EC50 - Crustaceans > 100 mg/l/48h Daphnia magna

EC50 - algae / Aquatic Plants > 100 mg/l/72h Desmodesmus subspicatus

NOEC chronic Fish 250 mg/l Danio rerio

NOEC chronic Crustaceans 100 mg/l Daphnia magna

NOEC chronic Algae/Aquatic plants 100 mg/l Desmodesmus subspicatus

Diisonyl phthalate*

LC50 - Fish > 102 mg/l/96h Danio rerio

EC50 - Crustaceans > 74 mg/l/48h Daphnia magna

EC50 - algae / Aquatic Plants > 88 mg/l/72h Scenedesmus subspicatus

12.2. Persistence and degradability

[3-(2,3,-epoxy)propylene]trimethoxylate*

Not easily biodegradable.

Methylene-bis-4,1-(n-phenylene-n'-butylurea) *

Solubility water 0.05 mg/l

Not easily biodegradable.

Titanium Titanium *[as a powder with 1% or more of particles with an aerodynamic diameter of ≤10 µm]

Solubility water < 0.001 mg/l

Biodegradation: no data available

Diisonyl phthalate*
Solubility water < 0.1 mg/l
Easily biodegradable.

12.3. Bioaccumulative potential

Methylene-bis-4,1-(n-phenylene-n'-butylurea) *
n-octanol/water partition coefficient 5.5
BCF < 2000 l/kg

Diisonyl phthalate*
n-octanol/water partition coefficient 8.8
BCF > 3 30

12.4. Mobility in soil

Methylene-bis-4,1-(n-phenylene-n'-butylurea) *
Soil/water partition coefficient 5.25

Diisonyl phthalate*
Soil/water partition coefficient 6

12.5. Results of PBT and vPvB assessment

Based on the available data- the product does not contain PBT or vPvB in amounts greater than 0.1%.

12.6. Endocrine disrupting properties*

Based on available data, the product does not contain a substance listed on the main European lists of potential or suspected endocrine disruptors for which their impact on environment is under evaluation. *

12.7. Other hazardous effects*

None.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

If possible, dispose of. Product residues are special wastes classified as hazardous. The hazard of waste containing this product should be catalogued in accordance with applicable regulations. Waste disposal should be entrusted to a company with appropriate waste management permits in accordance with national and possibly local regulations.

Contaminated packaging: Contaminated packaging should be disposed of in accordance with national waste management regulations.

SECTION 14: TRANSPORT INFORMATION

The product is not dangerous according to the regulations in force in the field of transport of dangerous goods: by road (A.D.R.), sea (IMDG Code) and air (IATA). *

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class (-es)

Not applicable.

14.4. Packaging group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for users

Not applicable.

14.7. Sea transport in bulk in accordance with IMO instruments*

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Seveso Category - Directive 2012/18/EC:
None.

POLIURETHANE SEALANT PU UK

Restrictions on the product or substance contained in accordance with Annex XVII of Regulation (CE) 1907/2006

Product: Point 3*
Contained substances: Point 75 *
Point 56 diphenylmethane-4,4'- diisocyanate Reg. REACH: 01-2119457014-47*
52 diisonyl phthalate Reg. REACH: 01-2119430798-28*
74 diisocyanates*

Substances on Candidate List (Art.59 REACH): On the basis of available data, the product does not contain any SVHC in percentage \geq than 0.1%.

Substances subject to authorisation (Annex XIV REACH): None.

Substances subject to export notification Regulation (EC) 649/2012: None.

Substances subject to the Rotterdam Convention: None.

Substances subject to the Stockholm Convention: None.

Medical inspections:

Workers exposed to this chemical do not need be under constant medical observation if the results of the risk assessment indicate that there is only a moderate risk to the safety and health of workers, provided that the requirements set out in Regulation 98/24/CE are met.

German water hazard classification (AwSV, vom 18 April 2017)*:

WGK 1: Low risk to groundwater

15.2. Chemical safety assessment

A chemical safety assessment has been prepared for the following substances contained:

Diphenylmethane-4,4'- diisocyanate

Methylene-bis-4,1-(n-phenylene-n'-butylurea) *

SECTION 16: OTHER INFORMATION

Full text of hazard statements H phrases mentioned in section 2 - 15 of the Sheet*:

Carc. 2	Carcinogenicity, category 2.
Acute Tox. 4	Acute toxicity, Category 4.
Asp. Tox. 1	Aspiration hazard, Category 1.
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1*	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, Category 2.
Skin Irrit. 2	Skin irritation, category 2.
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory irritation, category 1.
Skin Sens. 1	Skin sensitization, category 1.
Aquatic Chronic 3	Hazardous to aquatic environment, chronic toxicity, category 3.
H351	Suspected of causing cancer.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H318*	Causes serious eye damage.
H319	Causes eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H413*	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May cause an allergic reaction.
EUH211*	Warning! Hazardous respirable droplets may form if sprayed. Do not breathe spray or vapour.

Explanation of abbreviations and acronyms:

- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
- ATE Estimated acute toxicity
- CAS NUMBER: Chemical Abstract Service Number.
- CE50: Effective concentration for 50% of the research population
- CE NUMBER: Identification number in ESIS (European Inventory of Existing Chemical Substances).
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level.
- EmS: Emergency Schedule.
- GHS: Globally Harmonized System
- IATA DGR: Regulations regarding the transport of dangerous goods in international air transport.
- IC50: Immobilization concentration for 50% of the research population
- IMDG: International Maritime Code for dangerous goods.
- IMO: International Maritime Organization.
- INDEX NUMBER: INDEX NUMBER: Identification in Annex VI to CLP.
- LC50: Lethal concentration for 50% of the research population
- LD50: Lethal dose for 50% of the research population
- OEL: Occupational exposure limit value.
- PBT: substance, which is Persistent, Bio-accumulative and toxic according to REACH
- PEC: Predicted environmental Concentration.

- PEL: Predicted exposure level.
- PNEC: Predicted no-effect concentration.
- REACH: Regulation (EC) 1907/2006
- RID: Regulations for the international carriage of dangerous goods by rail
- TLV: Threshold Limit Value.
- TLV WAR. PUŁAP.: Concentration that cannot be exceeded in the work environment at any time
- TWA STEL: The limit of short-term occupational risk
- TWA: Weighted average exposure limit
- VOC: Volatile organic compound
- vPvB: Very Persistent and very Bioaccumulative according to REACH .
- WGK: Wassergefährdungsklassen (Deutschland).

GENERAL BIBLIOGRAPHY:

1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
2. Regulation (EC) 1272/2008 of the European Parliament (CLP)
3. Regulation (EU) 2020/878 (Annex II of REACH Regulation)*
4. Regulation (EC) 790/2009 of the European Parliament (I Atp.CLP)*
5. Regulation (EU) 286/2011 of the European Parliament (II Atp.CLP)
6. Regulation (EU) 618/2012 of the European Parliament (III Atp.CLP)
7. Regulation (EU) 487/2013 of the European Parliament (IV. Atp. CLP)
8. Regulation (EU) 944/2013 of the European Parliament (V. Atp. CLP)
9. Regulation (EU) 605/2014 of the European Parliament (VI. Atp. CLP)
10. Regulation (EC) 2015/1221 of the European Parliament (VII. Atp. CLP)
11. Regulation (EU) 2016/918 of the European Parliament (VIII. Atp. CLP)
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (UE) 2018/669 (XI Atp. CLP)
15. Regulation (UE) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (EU) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (EU) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (EU) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (EU) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (EU) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (EU) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS Website
- Agency ECHA Website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The 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 user should verify if the information provided is correct and comprehensive in relation to the specific use of the product.

This document shall not be equated with any specific product warranty.

As the manufacturer has no direct control over the use of the product, the user is obliged to comply at his own discretion with the laws and regulations in force on hygiene and safety. The producer is not responsible for any improper use of the product.

Provide adequate training to persons designated for the handling of chemical products.

CALCULATION METHODS FOR CLASSIFICATION*:

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2.

The data for evaluation of chemical and physical properties are reported in section 9.

Health hazards: Product classification is based on the calculation methods according to Annex I of the CLP Regulation, part 3, unless otherwise indicated in sections 11.

Environmental hazards: Product classification is based on the calculation methods according to Annex I of the CLP Regulation, part 4, unless otherwise indicated in section 12.

Changes in the Sheet:

Update of sections:

9: rewording of section: Information on basic physical and chemical properties

11: rewording of sub-section 11.1: Information on the hazard classes defined in Regulation (EC) No 1272/2008

12: new subsection 12.6: Endocrine disrupting properties.

14: rewording of sub-section 14.7: Sea transport in bulk in accordance with IMO instruments.

Changes in the content of sections:

1.1, 2.2, 2.3, 3.2, 6.3, 7.1, 7.2, 8.1, 8.2, 9.1, 9.2, 10.1, 10.3, 10.4, 10.5, 10.6, 11, 11.1, 11.2, 12, 12.1, 12.2, 12.3, 12.4, 12.6, 12.7, 14, 14.7, 15.1, 15.2, 16.

General update.