

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 1 of 18

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

PU-Dichtstoff LM grau 600ml

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

PENOSIL Premium PU-Sealant Low Modulus may be used for sealing glass structures and lacquered surfaces, for joining elements made of porcelain, aluminium, steel, stainless steel; plastics like polyester and many PVCs; painted wood, concrete and bricks.

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name:	Lorencic GmbH Nfg. & Co KG		
Street:	Puchstraße 208		
Place:	A-8055 Graz		
Telephone:	+43 (0) 316 / 47 25 64 32	Telefax:	+43 (0) 316 / 47 25 64 78
Responsible Department:	Dr. Gans-Eichler	e-mail:	info@tge-consult.de
	Chemieberatung GmbH	Tel.:	+49(0)2534 6441185
	Otto-Hahn-Str. 36		www.tge-consult.de
	D-48161 Münster		

1.4. Emergency telephone number:

Poison Control Centre Vienna: +43 (0) 1 406 43 43

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**

Hazard categories:

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Resp. Sens. 1

Hazard Statements:

Causes serious eye irritation.

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

2.2. Label elements**GB CLP Regulation****Hazard components for labelling**

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate

Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Signal word: Danger

Pictograms:

**Hazard statements**

H319 Causes serious eye irritation.

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

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 2 of 18

P102	Keep out of reach of children.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Special labelling of certain mixtures

EUH204	Contains isocyanates. May produce an allergic reaction.
EUH212	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust. Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

2.3. Other hazards

The mixture contains the following substances fulfilling the PBT criteria according to UK REACH: Reaction mass of ethylbenzene and xylene; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate.

SECTION 3: Composition/information on ingredients
3.2. Mixtures
Hazardous components

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	GHS Classification			
	Hydrocarbons, C11-C14 n-alkanes, iso-alkanes, cyclics, <2% aromatics			2,5 - <5 %
	926-141-6		01-2119456620-43	
	Asp. Tox. 1; H304 EUH066			
13463-67-7	titanium dioxide			2,5 - <5 %
	236-675-5	022-006-00-2	01-2119489379-17	
	Carc. 2; H351			
	Reaction mass of ethylbenzene and xylene			2,5 - <5 %
	905-588-0		01-2119488216-32	
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H226 H332 H312 H315 H319 H335 H373 H304			
1305-78-8	calcium oxide			2,5 - <5 %
	215-138-9		01-2119475325-36	
	Skin Irrit. 2, Eye Dam. 1, STOT SE 3; H315 H318 H335			
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate			0.5 - < 1 %
	202-966-0	615-005-00-9	01-2119457014-47	
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373			
82919-37-7	Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate			0.1 - < 0.2 %
	280-060-4			
	Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H317 H400 H410			
1065336-91-5	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate			< 0.1 %
	915-687-0		01-2119491304-40	

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 3 of 18

Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 1; H317 H400 H410

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
	926-141-6	Hydrocarbons, C11-C14 n-alkanes, iso-alkanes, cyclics, <2% aromatics	2,5 - <5 %
		inhalation: LC50 = > 20 mg/l (vapours); dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg	
13463-67-7	236-675-5	titanium dioxide	2,5 - <5 %
		inhalation: LC50 = [3.43 - 6.82] mg/l (dusts or mists); oral: LD50 = > 5000 mg/kg	
	905-588-0	Reaction mass of ethylbenzene and xylene	2,5 - <5 %
		inhalation: LC50 = 6700 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 12126 mg/kg; oral: LD50 = 3523 mg/kg	
1305-78-8	215-138-9	calcium oxide	2,5 - <5 %
		inhalation: LC50 = > 6,04 mg/l (dusts or mists); dermal: LD50 = > 2500 mg/kg; oral: LD50 = > 2000 mg/kg	
101-68-8	202-966-0	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	0.5 - < 1 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = [0,368] mg/l (dusts or mists); dermal: LD50 = > 9400 mg/kg; oral: LD50 = >5000 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100 Resp. Sens. 1; H334: >= 0,1 - 100 STOT SE 3; H335: >= 5 - 100	
1065336-91-5	915-687-0	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	< 0.1 %
		dermal: LD50 = >3170 mg/kg; oral: LD50 = 3230 mg/kg	

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

SECTION 4: First aid measures
4.1. Description of first aid measures
General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

After contact with skin

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

If swallowed, immediately drink: Water. Never give anything by mouth to an unconscious person or a person with cramps. Do NOT induce vomiting. Call a physician in any case!

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

If experiencing respiratory symptoms: Apply cortisone spray at early stage.

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

Treat symptomatically.

SECTION 5: Firefighting measures

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 4 of 18

5.1. Extinguishing media

Suitable extinguishing media

Foam. Carbon dioxide. Extinguishing powder. Water spray.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon dioxide (CO₂). Carbon monoxide Nitrogen oxides (NO_x)

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

For emergency responders

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

6.2. Environmental precautions

Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

Other information

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas.

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and after work. Take off contaminated clothing. Take off contaminated clothing. Street clothing should be stored separately from work clothing. Contaminated work clothing should not

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 5 of 18

be allowed out of the workplace. Protect skin by using skin protective cream.

Further information on handling

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 20°C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

7.3. Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
1305-78-8	Calcium oxide	-	2		TWA (8 h)	WEL
-	Isocyanates, all (as -NCO) Except methyl isocyanate	-	0.02		TWA (8 h)	WEL
		-	0.07		STEL (15 min)	WEL
13463-67-7	Titanium dioxide, respirable	-	4		TWA (8 h)	WEL
-	Xylene, o-, m-, p- or mixed isomers	50	220		TWA (8 h)	WEL
		100	441		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
	Reaction mass of ethylbenzene and xylene			
	Worker DNEL, long-term	inhalation	systemic	221 mg/m ³
	Worker DNEL, acute	inhalation	systemic	442 mg/m ³
	Worker DNEL, long-term	inhalation	local	221 mg/m ³
	Worker DNEL, acute	inhalation	local	442 mg/m ³
	Worker DNEL, long-term	dermal	systemic	212 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	65,3 mg/m ³
	Consumer DNEL, acute	inhalation	systemic	260 mg/m ³
	Consumer DNEL, long-term	inhalation	local	65,3 mg/m ³
	Consumer DNEL, acute	inhalation	local	260 mg/m ³
	Consumer DNEL, long-term	dermal	systemic	125 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	12,5 mg/kg bw/day
1305-78-8	calcium oxide			

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 6 of 18

Worker DNEL, long-term	inhalation	local	1 mg/m ³
Worker DNEL, acute	inhalation	local	4 mg/m ³
Consumer DNEL, long-term	inhalation	local	1 mg/m ³
Consumer DNEL, acute	inhalation	local	4 mg/m ³
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate		
Consumer DNEL, acute	oral	systemic	20 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	25 mg/kg bw/day
Worker DNEL, acute	dermal	systemic	50 mg/kg bw/day
Consumer DNEL, acute	dermal	local	17,2 mg/cm ²
Worker DNEL, acute	dermal	local	28,7 mg/cm ²
Consumer DNEL, acute	inhalation	systemic	0,05 mg/m ³
Worker DNEL, acute	inhalation	systemic	0,1 mg/m ³
Consumer DNEL, long-term	inhalation	systemic	0,025 mg/m ³
Worker DNEL, long-term	inhalation	systemic	0,05 mg/m ³
Consumer DNEL, acute	inhalation	local	0,05 mg/m ³
Worker DNEL, acute	inhalation	local	0,1 mg/m ³
Consumer DNEL, long-term	inhalation	local	0,025 mg/m ³
Worker DNEL, long-term	inhalation	local	0,05 mg/m ³
1065336-91-5	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		
Worker DNEL, long-term	inhalation	systemic	0,68 mg/m ³
Worker DNEL, long-term	dermal	systemic	0,5 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,17 mg/m ³
Consumer DNEL, long-term	dermal	systemic	0,25 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,05 mg/kg bw/day

PNEC values

CAS No	Substance	Value
	Environmental compartment	Value
	Reaction mass of ethylbenzene and xylene	
	Freshwater	0,327 mg/l
	Freshwater (intermittent releases)	0,327 mg/l
	Marine water	0,327 mg/l
	Freshwater sediment	12,46 mg/kg
	Marine sediment	12,46 mg/kg
	Micro-organisms in sewage treatment plants (STP)	6,58 mg/l
	Soil	2,31 mg/kg
1305-78-8	calcium oxide	
	Freshwater	0,37 mg/l
	Freshwater (intermittent releases)	0,37 mg/l
	Marine water	0,24 mg/l
	Micro-organisms in sewage treatment plants (STP)	2,27 mg/l
	Soil	817,4 mg/kg

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 7 of 18

101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	
Freshwater		1 mg/l
Freshwater (intermittent releases)		10 mg/l
Marine water		0,1 mg/l
Micro-organisms in sewage treatment plants (STP)		1 mg/l
Soil		1 mg/kg
1065336-91-5	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	
Freshwater		0,002 mg/l
Freshwater (intermittent releases)		0,009 mg/l
Marine water		0,0002 mg/l
Freshwater sediment		1,05 mg/kg
Marine sediment		0,11 mg/kg
Micro-organisms in sewage treatment plants (STP)		1 mg/l
Soil		0,21 mg/kg

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection. BS/EN 166

Hand protection

Wear suitable gloves.

Suitable material:

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time \geq 8 h

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.

Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Suitable protective clothing: Lab apron.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

-Exceeding exposure limit values

-Insufficient ventilation.

Suitable respiratory protective equipment: Combination filtering device (EN 14387) Type AB/P3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

Do not allow to enter into surface water or drains.

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 8 of 18

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: Paste
Colour: grey, black
Odour: characteristic

Test method**Changes in the physical state**

Melting point/freezing point: not determined
Boiling point or initial boiling point and boiling range: 137 °C
Sublimation point: not determined
Softening point: not determined
Pour point: not determined
Flash point: >70 °C °C ISO 3679

Explosive properties

none

Lower explosion limits: not determined
Upper explosion limits: not determined
Auto-ignition temperature: not determined

Self-ignition temperature

Gas: 465 °C

Decomposition temperature: not determined

pH-Value: not determined

Viscosity / dynamic: not determined

Viscosity / kinematic:
(at 40 °C) >20,5 mm²/s

Flow time: not determined

Water solubility: not determined

Solubility in other solvents

Acetone

Partition coefficient n-octanol/water: SECTION 12: Ecological information

Vapour pressure:
(at 20 °C) 8,03 hPaVapour pressure:
(at 50 °C) 49,28 hPaDensity (at 20 °C): 1,16 g/cm³

Relative vapour density: not determined

9.2. Other information**Information with regard to physical hazard classes**

Sustaining combustion: Not sustaining combustion

Oxidizing properties
none**Other safety characteristics**

Solvent separation test: not determined

Solvent content: not determined

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 9 of 18

Solid content: not determined

Evaporation rate: not determined

Further Information

No information available.

SECTION 10: Stability and reactivity
10.1. Reactivity

Stable under normal storage and handling conditions.

10.2. Chemical stability

Stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions

Reacts with : Water. Alcohols. Amines.

10.4. Conditions to avoid

Keep away from heat. Moisture.

10.5. Incompatible materials

Alkalis (alkalis). acid. Oxidizing agents, strong.

10.6. Hazardous decomposition products

 Can be released in case of fire: Carbon dioxide (CO₂). Carbon monoxide Nitrogen oxides (NO_x)

SECTION 11: Toxicological information
11.1. Information on hazard classes as defined in GB CLP Regulation
Toxicokinetics, metabolism and distribution

No information available.

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Hydrocarbons, C11-C14 n-alkanes, iso-alkanes, cyclics, <2% aromatics				
	oral	LD50 > 5000 mg/kg	Rat.	ECHA Dossier	
	dermal	LD50 > 5000 mg/kg	Rat.	ECHA Dossier	
	inhalation (4 h) vapour	LC50 > 20 mg/l	Rat.	ECHA Dossier	
13463-67-7	titanium dioxide				
	oral	LD50 > 5000 mg/kg	Mouse	Toxicol. Letters 168, 176-185 (2007)	WoE
	inhalation (4 h) aerosol	LC50 [3.43 - 6.82] mg/l	Rat	ECHA Dossier	WoE
	Reaction mass of ethylbenzene and xylene				
	oral	LD50 3523 mg/kg	Rat	ECHA Dossier	EU Method B.1
	dermal	LD50 12126 mg/kg	Rabbit	ECHA Dossier	
	inhalation (4 h) vapour	LC50 6700 mg/l	Rat	Toxicol Appl Pharmacol 33:543-558.(1975)	EU Method B.2
	inhalation aerosol	ATE 1,5 mg/l			

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 10 of 18

1305-78-8	calcium oxide					
	oral	LD50 mg/kg	> 2000	Rat	ECHA Dossier	OECD Guideline 425
	dermal	LD50 mg/kg	> 2500	Rabbit	ECHA Dossier	EU Method B.3
	inhalation (4 h) aerosol	LC50 mg/l	> 6,04	Rat	ECHA Dossier	OECD Guideline 436
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate					
	oral	LD50 mg/kg	>5000	Rat	RTECS	
	dermal	LD50 mg/kg	> 9400	Rabbit	ECHA Dossier	OECD Guideline 402
	inhalation vapour	ATE	11 mg/l			
	inhalation (4 h) aerosol	LC50 mg/l	[0,368]	Rat	ECHA Dossier	OECD Guideline 403
1065336-91-5	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate					
	oral	LD50 mg/kg	3230	Rat	ECHA Dossier	OECD 423
	dermal	LD50 mg/kg	>3170	Rat	ECHA Dossier	OECD 402

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Contains isocyanates. May produce an allergic reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. (4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

Xylene:

In-vitro mutagenicity: Method: EU Method B.10 (Mutagenicity - In Vitro Mammalian Chromosome Aberration Test); Result: negative. Literature information: ECHA Dossier; Developmental toxicity/teratogenicity : NOAEL >= 500ppm (OECD Guideline 414); Literature information: ECHA Dossier; Carcinogenicity: Method: EU Method B.32 (Carcinogenicity Test); Species: Rat.; Exposure duration: 24 months. Result: NOAEL = 500 mg/kg; Literature information: ECHA Dossier; Reproductive toxicity: Method: (inhalation.): EPA OPPTS 870.3800 (Reproduction and Fertility Effects); Species: Rat ; Exposure duration: 14d. Results: NOAEC = 500 ppm. Literature information: ECHA Dossier

calcium oxide:

ethylbenzene: In-vitro mutagenicity: Method: OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test); Result: negative. Literature information: ECHA Dossier; Carcinogenicity: Method: (inhalation.): OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies, 6h/d); Species: Mouse. ; Exposure duration: 2 years ; Result: NOAEL = 250 ppm; Literature information: ECHA Dossier; Reproductive toxicity: Method: (inhalation.): OECD Guideline 415 (One-Generation Reproduction Toxicity Study, 6h/d); Species: Rat; Exposure duration: 28d. Result: NOAEL = 500 ppm; Literature information: ECHA Dossier; Developmental toxicity/teratogenicity: Method: (inhalation.): OECD Guideline 414 (Prenatal Developmental Toxicity Study); Species: Rat; Exposure duration: 20d. Result: NOAEL = 500 ppm; Literature information: ECHA Dossier

In-vitro mutagenicity:

Method: Bacterial Reverse Mutation Assay (Ames) = positive. ; OECD Guideline 481 = negative. ; OECD Guideline 480 = negative. ; Literature information: ECHA Dossier

Developmental toxicity/teratogenicity: Species: Wistar Rat. /Mouse. Method: OECD Guideline 414 Result:

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 11 of 18

NOAEL \geq 680 / \geq 440 mg/kg (teratogenicity) ; Literature information: ECHA Dossier

titanium dioxide:

In vivo mutagenicity/genotoxicity:

No experimental indications of in vivo mutagenicity exist.

Literature information: ECHA Dossier

Reproductive toxicity:

Method: OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study)

Species: Rat

Result: NOAEL(P0, P1) \geq 1000 mg/kg; NOAEL(F1, F1) \geq 1000 mg/kg

Literature information: ECHA Dossier

Developmental toxicity/teratogenicity:

Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study)

Species: Rat

Results: NOAEL \geq 1000 mg/kg (fetus)

Results: NOAEL \geq 1000 mg/kg (Maternal toxicity)

Literature information: ECHA Dossier

Carcinogenicity:

Result / evaluation: negative.

Literature information: ECHA Dossier

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Xylene:

Subchronic oral toxicity: Method: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents);

Species: Rat ; Exposure duration: 90d. Result: NOAEL = 750 mg/kg (male.) = 150 mg/kg (female.); Literature information: ECHA Dossier

ethylbenzene:

Subchronic oral toxicity: Method: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents);

Species: Rat; Exposure duration: 90d. Result: NOAEL = 75 mg/kg; Literature information: ECHA Dossier;

Subacute inhalative toxicity: Method: OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day, 6h/d); Species: Mouse.; Exposure duration: 28 d. Result: NOAEL = 800 ppm. Literature information: ECHA Dossier

calcium oxide:

Subchronic oral toxicity: Exposure time: 90d; Species: Rat. ; Method: OECD Guideline 408

Result: NOAEL \geq 50 mg/L (Water.) ; Literature information: Patty's Industrial Hygiene and Toxicology.

Volumes 2A, 2B, 2C, 2D, 2E, 2F: Toxicology. 4th ed.

titanium dioxide:

Subchronic inhalative toxicity:

Method: WoE

Exposure duration: 28d

Species: Rat

Results: NOAEC \geq 5.4 mg/m³

Literature information: Inhalation of high concentrations of low toxicity dusts in rats results in impaired pulmonary clearance mechanisms and persistent inflammation, Warheit, D.B. et al., 1997, Toxicology and Applied Pharmacology 145: 10 - 22.

Subchronic oral toxicity:

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 12 of 18

Method: WoE (OECD 408)
 Species: Rat
 Exposure duration: 90d
 Result: NOAEL >= 1000 mg/kg
 Literature information: ECHA Dossier

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No information available.

11.2. Information on other hazards
Endocrine disrupting properties

No data available.

SECTION 12: Ecological information
12.1. Toxicity

The product has not been tested.

CAS No	Chemical name			[h] [d]	Species	Source	Method
	Aquatic toxicity	Dose					
	Hydrocarbons, C11-C14 n-alkanes, iso-alkanes, cyclics, <2% aromatics						
	Acute fish toxicity	LC50 LL50 >1000 mg/l		96 h	Oncorhynchus mykiss	ECHA Dossier	
	Acute algae toxicity	ErC50 > 1000 mg/l		72 h	Pseudokirchneriella subcapitata	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 EL50 >1000 mg/l		48 h	Daphnia magna	ECHA Dossier	
13463-67-7	titanium dioxide						
	Acute fish toxicity	LC50 155 - 294 mg/l		96 h	Fish	ECHA Dossier	WoE
	Acute algae toxicity	ErC50 100 mg/l		72 h	Algae	ECHA Dossier	WoE
	Acute crustacea toxicity	EC50 19.3 - 33.6 mg/l		48 h	Daphnia magna	ECHA Dossier	WoE
	Fish toxicity	NOEC >= 80 mg/l		6 d		ECHA Dossier	WoE
	Algae toxicity	NOEC >= 1 mg/l		32 d	Synedra ulna, Scenedesmus quadricauda, Stigeocloni	Environ. Tox. Chem. 31, 2414-2422 (2012)	WoE
	Crustacea toxicity	NOEC 1 - 10 mg/l		21 d	Daphnia magna	ECHA Dossier	WoE
	Acute bacteria toxicity	(> 1000 mg/l)		3 h	activated sludge, domestic	ECHA Dossier	WoE
	Reaction mass of ethylbenzene and xylene						
	Acute fish toxicity	LC50 8,4 mg/l		96 h	Oncorhynchus mykiss	Ecotoxicology and Environmental Safety.	OECD Guideline 203
	Acute algae toxicity	ErC50 4,9 mg/l		72 h	Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety.	OECD Guideline 201
	Acute crustacea toxicity	EC50 > 3,4 mg/l		48 h	Ceriodaphnia dubia	Ecotoxicology and Environmental Safety 3	US EPA 600/4-91-003

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 13 of 18

	Fish toxicity	NOEC mg/l	> 1,3	56 d	Oncorhynchus mykiss	Appl. Sci. Branch, Eng. Res. Cent. Denve	
	Crustacea toxicity	NOEC mg/l	1,17	7 d	Ceriodaphnia dubia	Ecotoxicology and Environmental Safety 3	US EPA 600/4-91-003
	Acute bacteria toxicity	(> 175 mg/l)		0,5 h	Activated sludge	Research Journal WPCF 60(10) 1850-1856 (OECD Guideline 209
1305-78-8	calcium oxide						
	Acute fish toxicity	LC50 mg/l	50,6	96 h	Oncorhynchus mykiss	ECHA Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	184,57	72 h	Pseudokirchneriella subcapitata	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	49,1	48 h	Daphnia magna	ECHA Dossier	OECD Guideline 202
	Crustacea toxicity	NOEC	32 mg/l	14 d	Crangon septemspinosa	Aquatic Invasions (2009) Volume 4, Issue	
	Acute bacteria toxicity	(300,4 mg/l)		3 h	activated sludge of a predominantly domestic sewage	ECHA Dossier	OECD Guideline 209
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate						
	Acute fish toxicity	LC50 mg/l	> 1000	96 h	Danio rerio	101-68-8	OECD Guideline 203
	Algae toxicity	NOEC mg/l	1640	3 d	Desmodesmus subspicatus		OECD Guideline 201
	Crustacea toxicity	NOEC mg/l	>= 10	21 d	Daphnia magna	ECHA Dossier	OECD Guideline 211
	Acute bacteria toxicity	(> 100 mg/l)		3 h	Activated sludge	ECHA Dossier	OECD Guideline 209
1065336-91-5	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate						
	Acute fish toxicity	LC50	0,9 mg/l	96 h	Brachydanio rerio (zebra-fish)	ECHA Dossier	OECD 203
	Acute algae toxicity	ErC50 mg/l	1,68	72 h	Desmodesmus subspicatus	ECHA Dossier	OECD 201
	Crustacea toxicity	NOEC	1 mg/l	21 d	Daphnia magna	ECHA Dossier	OECD 211

12.2. Persistence and degradability

The product has not been tested.

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 14 of 18

CAS No	Chemical name	Method	Value	d	Source
	Hydrocarbons, C11-C14 n-alkanes, iso-alkanes, cyclics, <2% aromatics	OECD 301F / ISO 9408 / EEC 92/69/V, C.4-D	69%	28	ECHA Dossier
	Readily biodegradable (according to OECD criteria).				
	Reaction mass of ethylbenzene and xylene	OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D	87,8%	28	ECHA Read Across
	Easily biodegradable (concerning to the criteria of the OECD)				
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	OECD Guideline 302C	0%*	28	101-68-8
	Not readily biodegradable (according to OECD criteria)				
1065336-91-5	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	OECD 301E / EEC 92/69 annex V, C.4-B	38%	28	ECHA-Dossier
	Moderately/partially biodegradable.				

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
	Reaction mass of ethylbenzene and xylene	3,2
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	4,51
1065336-91-5	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	2,77

BCF

CAS No	Chemical name	BCF	Species	Source
	Hydrocarbons, C11-C14 n-alkanes, iso-alkanes, cyclics, <2% aromatics	144,3	calculated	ECHA Dossier
13463-67-7	titanium dioxide	333	Lumbriculus variegatus	REACH Registration D
	Reaction mass of ethylbenzene and xylene	> 5,5 - < 12,2	Oncorhynchus mykiss	Appl. Sci. Branch, E
1305-78-8	calcium oxide	3,55	Lolium perenne cv Nui	Communications in So
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	92	Cyprinus carpio	ECHA Dossier
1065336-91-5	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	<31,4	Cyprinus carpio (Common Carp)	ECHA-Dossier

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The mixture contains the following substances fulfilling the PBT criteria according to UK REACH: Reaction mass of ethylbenzene and xylene; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 15 of 18

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

080410 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants other than those mentioned in 08 04 09

List of Wastes Code - used product

080410 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants other than those mentioned in 08 04 09

List of Wastes Code - contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 16 of 18

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.**14.4. Packing group:** No dangerous good in sense of this transport regulation.**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Refer to section 6-8

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 56

2010/75/EU (VOC): 7 %

2004/42/EC (VOC): 81,2 g/l

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

UK REACH Appendix XVII, No (mixture): 3, 52.

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

Rev. 1,0 Initial release 04.06.2014

Rev. 2,0 08.06.2018, Changes in chapter: 1-16.

Rev. 3,0 29.12.2021 Changes in chapter: 1,2,3,4,6,7,8,9,11,12,15,16

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

AGW: Arbeitsplatzgrenzwert

CAS: Chemical Abstracts Service

CLP: Classification, Labelling and Packaging of substances and mixtures

DNEL: Derived No Effect Level

d: day(s)

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

ECHA: European Chemicals Agency

EWC: European Waste Catalogue

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IMDG: International Maritime Code for Dangerous Goods

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 17 of 18

IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
 h: hour
 LOAEL: Lowest observed adverse effect level
 LOAEC: Lowest observed adverse effect concentration
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 NOAEL: No observed adverse effect level
 NOAEC: No observed adverse effect concentration
 NLP: No-Longer Polymers
 N/A: not applicable
 OECD: Organisation for Economic Co-operation and Development
 PNEC: predicted no effect concentration
 PBT: Persistent bioaccumulative toxic
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail
 REACH: Registration, Evaluation, Authorisation of Chemicals
 SVHC: substance of very high concern
 TRGS: Technische Regeln für Gefahrstoffe
 UN: United Nations
 VOC: Volatile Organic Compounds

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Eye Irrit. 2; H319	Calculation method
Resp. Sens. 1; H334	Calculation method

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
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.
H318	Causes serious eye damage.
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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH212	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

Further Information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:
 Health hazards: Calculation method.
 Environmental hazards: Calculation method.
 Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product

Safety Data Sheet

according to UK REACH Regulation

PU-Dichtstoff LM grau 600ml

Revision date: 30.12.2021

Product code: ZKR194LO

Page 18 of 18

named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)