

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 1 of 18

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

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

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

The foam is used for the mounting of doors and windows, for the insulation and fixing of pipes, for filling holes and cracks, for the fixing of wall elements and tiles, and as thermal insulation material. Adheres well to most building materials used, with the exception of teflon, polyethylene and silicone surfaces. The cured foam is sensitive to UV light and direct sunlight.

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:

Aerosol: Aerosol 1

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Resp. Sens. 1

Respiratory or skin sensitisation: Skin Sens. 1

Carcinogenicity: Carc. 2

Specific target organ toxicity - single exposure: STOT SE 3

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

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

May cause an allergic skin reaction.

Suspected of causing cancer.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements**GB CLP Regulation**

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 2 of 18

Hazard components for labelling

4,4'-methylenediphenyl diisocyanate, isomers and homologues

Signal word: Danger

Pictograms:


Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat. No Smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
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. 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.
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2.3. Other hazards

The mixture contains the following substances fulfilling the PBT criteria according to UK REACH:
4,4'-methylenediphenyl diisocyanate, isomers and homologues; ethanediol; ethylene glycol.
In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	GHS Classification	
9016-87-9	4,4'-methylenediphenyl diisocyanate, isomers and homologues	40 - < 60 %

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 3 of 18

		615-005-00-9	
	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		
1244733-77-4	Reaction products of phosphoryl trichloride and 2-methyloxirane		10 - < 20 %
	807-935-0		01-2119486772-26
	Acute Tox. 4; H302		
75-28-5	isobutane		5 - < 10 %
	200-857-2	601-004-00-0	01-2119485395-27
	Flam. Gas 1, Liquefied gas; H220 H280		
115-10-6	dimethyl ether		5 - < 10 %
	204-065-8	603-019-00-8	01-2119472128-37
	Flam. Gas 1, Compressed gas; H220 H280		
74-98-6	propane		2,5 - < 5 %
	200-827-9	601-003-00-5	01-2119486944-21
	Flam. Gas 1, Liquefied gas; H220 H280		
107-21-1	ethanediol; ethylene glycol		0.5 - < 1 %
	203-473-3	603-027-00-1	01-2119456816-28
	Acute Tox. 4, STOT RE 2; H302 H373		

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	
9016-87-9		4,4'-methylenediphenyl diisocyanate, isomers and homologues	40 - < 60 %
		inhalation: LC50 = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 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	
1244733-77-4	807-935-0	Reaction products of phosphoryl trichloride and 2-methyloxirane	10 - < 20 %
		inhalation: LC50 = > 7 mg/l (vapours); dermal: LD50 = >2000 mg/kg; oral: LD50 = 632 mg/kg	
75-28-5	200-857-2	isobutane	5 - < 10 %
		inhalation: LC50 = 520400 (120 min) ppm (gases)	
115-10-6	204-065-8	dimethyl ether	5 - < 10 %
		inhalation: LC50 = 164000 ppm (gases)	
74-98-6	200-827-9	propane	2,5 - < 5 %
		inhalation: LC50 = 800000 (15 min) ppm (gases)	
107-21-1	203-473-3	ethanediol; ethylene glycol	0.5 - < 1 %
		dermal: LD50 = >5000 mg/kg; oral: LD50 = 7712 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.

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 4 of 18

Apply cortisone spray at early stage.

After contact with skin

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 immediately carefully and thoroughly with eye-bath or water. 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. Caution if victim vomits: Risk of aspiration! Call a physician immediately.

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

refer to section 2 and 11.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Foam. Carbon dioxide. Extinguishing powder.

Unsuitable extinguishing media

High power water jet.
Water spray.
Water

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air. Can be released in case of fire: Carbon dioxide (CO₂). Carbon monoxide Hydrogen cyanide (hydrocyanic acid) Isocyanates Nitrogen oxides (NO_x).

5.3. Advice for firefighters

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains. In case of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Ventilate affected area. Remove all sources of ignition. 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

Do not allow to enter into surface water or drains. Explosion hazard. Eliminate leaks immediately. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 5 of 18

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.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
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. Take precautionary measures against static discharges. Do not spray on naked flames or any incandescent material. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.
Wear suitable protective clothing. (See section 8.)

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Heating causes rise in pressure with risk of bursting.

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. Remove contaminated clothing immediately and dispose off safely. Wash contaminated clothing prior to re-use. Used working clothes should not be worn outside the work area. Street clothing should be stored separately from work clothing.

Further information on handling

General protection and hygiene measures: refer to chapter 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. Keep away from sources of ignition. - No smoking.
Keep container dry.

Hints on joint storage

Do not store together with: Explosives. Flammable solids. Pyrophoric liquids and solids. Self-heating substances and mixtures. Substances and mixtures which, in contact with water, emit flammable gases. Oxidizing liquids. Oxidizing solids. Self-reactive substances and mixtures. Organic peroxides. Radioactive substances.
Infectious substances.

Further information on storage conditions

Recommended storage temperature: 5-30°C. Do not store at temperatures over: 50°C
Unsuitable materials for Container: metal.
Protect against direct sunlight.

7.3. Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 6 of 18

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
115-10-6	Dimethyl ether	400	766		TWA (8 h)	WEL
		500	958		STEL (15 min)	WEL
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	WEL
		40	104		STEL (15 min)	WEL
-	Isocyanates, all (as -NCO) Except methyl isocyanate	-	0.02		TWA (8 h)	WEL
		-	0.07		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
1244733-77-4	Reaction products of phosphoryl trichloride and 2-methyloxirane			
Worker DNEL, long-term		inhalation	systemic	8,2 mg/m ³
Worker DNEL, acute		inhalation	systemic	22,6 mg/m ³
Worker DNEL, long-term		dermal	systemic	2,91 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,45 mg/m ³
Consumer DNEL, acute		inhalation	systemic	5,6 mg/m ³
Consumer DNEL, long-term		dermal	systemic	1,04 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,52 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	2 mg/kg bw/day
115-10-6	dimethyl ether			
Worker DNEL, long-term		inhalation	systemic	1894 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	471 mg/m ³
107-21-1	ethanediol; ethylene glycol			
Worker DNEL, long-term		dermal	systemic	106 mg/kg bw/day
Worker DNEL, long-term		inhalation	local	35 mg/m ³
Consumer DNEL, long-term		dermal	systemic	53 mg/kg bw/day
Consumer DNEL, long-term		inhalation	local	7 mg/m ³

PNEC values

CAS No	Substance	Value
1244733-77-4	Reaction products of phosphoryl trichloride and 2-methyloxirane	
Freshwater		0,32 mg/l
Freshwater (intermittent releases)		0,51 mg/l
Marine water		0,032 mg/l
Freshwater sediment		11,5 mg/kg
Marine sediment		1,15 mg/kg
Secondary poisoning		11,6 mg/kg

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 7 of 18

Micro-organisms in sewage treatment plants (STP)	19,1 mg/l
Soil	0,34 mg/kg
115-10-6	dimethyl ether
Freshwater	0,155 mg/l
Freshwater (intermittent releases)	1,549 mg/l
Marine water	0,016 mg/l
Freshwater sediment	0,681 mg/kg
Marine sediment	0,069 mg/kg
Micro-organisms in sewage treatment plants (STP)	160 mg/l
Soil	0,045 mg/kg
107-21-1	ethanediol; ethylene glycol
Freshwater	10 mg/l
Freshwater (intermittent releases)	10 mg/l
Marine water	1 mg/l
Freshwater sediment	37 mg/kg
Marine sediment	3,7 mg/kg
Micro-organisms in sewage treatment plants (STP)	199,5 mg/l
Soil	1,53 mg/kg

8.2. Exposure controls

Appropriate engineering controls

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

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Individual protection measures, such as personal protective equipment
Eye/face protection

Wear eye/face protection. BS/EN 166

Hand protection

In case of prolonged or frequently repeated skin contact: Wear suitable gloves.

Suitable material:

Butyl rubber. (0,5 mm)

Breakthrough time >480 min

penetration time (maximum wearing period): >160 min

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

Protective clothing.

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

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 8 of 18

Insufficient ventilation

Suitable respiratory protective equipment: Protective respiration apparatus not using surrounding air (breathing apparatus) (DIN EN 133).

Use only respiratory protection equipment with CE-symbol including four digit test number.

Thermal hazards

No special precautionary measures are necessary.

Environmental exposure controls

Do not allow to enter into surface water or drains.

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

Physical state:	Aerosol
Colour:	light yellow
Odour:	characteristic

Changes in the physical state

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	-12 (Aerosol propellants) °C
Sublimation point:	not determined
Softening point:	not determined
Flash point:	-83 (Aerosol propellants) °C

Flammability

Gas:	not determined
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Explosive properties

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

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

Self-ignition temperature

Gas:	460 (Aerosol propellants) °C
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / dynamic: (at 20 °C)	not determined
Viscosity / kinematic:	not determined
Flow time:	not determined
Water solubility:	not determined

Solubility in other solvents

not determined

Vapour pressure: (at 20 °C)	not determined
Vapour pressure: (at 50 °C)	< 3000 hPa
Density (at 20 °C):	1,01 g/cm ³
Relative vapour density:	not determined
Particle characteristics:	not determined

9.2. Other information

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 9 of 18

Information with regard to physical hazard classes

Sustaining combustion: No data available
 Oxidizing properties: none

Other safety characteristics

Solvent separation test: not determined
 Solvent content: not determined
 Solid content: not determined
 Evaporation rate: not determined

Further Information

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Heating causes rise in pressure with risk of bursting.

10.4. Conditions to avoid

Keep away from heat. Ignition hazard.

10.5. Incompatible materials

Water. Alcohol. amines. Ammonia. strong alkalis. Strong acid. Oxidizing agents, strong. Reducing agents, strong.

10.6. Hazardous decomposition products

In use, may form flammable/explosive vapour-air mixture. Can be released in case of fire: Carbon dioxide (CO₂). Carbon monoxide Nitrogen oxides (NO_x).

Further information

In use, may form flammable/explosive vapour-air mixture.

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

Harmful if inhaled.

ATEmix calculated

ATE (oral) 1331,9 mg/kg; ATE (inhalation aerosol) 3,000 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
9016-87-9	4,4'-methylenediphenyl diisocyanate, isomers and homologues				
	oral	LD50 > 2000 mg/kg			
	dermal	LD50 > 2000 mg/kg			
	inhalation (4 h) vapour	LC50 11 mg/l			
	inhalation aerosol	ATE 1,5 mg/l			

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 10 of 18

1244733-77-4	Reaction products of phosphoryl trichloride and 2-methyloxirane					
	oral	LD50 mg/kg	632	Rat	ECHA Dossier	
	dermal	LD50 mg/kg	>2000	Rat	ECHA Dossier	
	inhalation (4 h) vapour	LC50	> 7 mg/l	Rat	ECHA Dossier	
75-28-5	isobutane					
	inhalation gas	LC50 (120 min) ppm	520400	Mouse.	ECHA Dossier	
115-10-6	dimethyl ether					
	inhalation (4 h) gas	LC50 ppm	164000	Rat	ECHA Dossier	
74-98-6	propane					
	inhalation gas	LC50 (15 min) ppm	800000	Rat	ECHA Dossier	
107-21-1	ethanediol; ethylene glycol					
	oral	LD50 mg/kg	7712	Rat.	ECHA Dossier	
	dermal	LD50 mg/kg	>5000	Rabbit	RTECS	

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

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

May cause an allergic skin reaction. (4,4'-methylenediphenyl diisocyanate, isomers and homologues)

The product is: sensitizing.

People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation.

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer. (4,4'-methylenediphenyl diisocyanate, isomers and homologues)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

isobutane:

In vitro mutagenicity/genotoxicity: No experimental indications of mutagenicity in-vitro exist. Reproductive

toxicity: NOAEC = 3000 ppm (OECD Guideline 422) Developmental toxicity/teratogenicity: NOAEC = 9000 ppm

(OECD Guideline 422) Literature information: ECHA Dossier

dimethyl ether:

Developmental toxicity/teratogenicity: NOAEL = 4000 ppm; Literature information: ECHA Dossier

In-vitro mutagenicity:

Method: OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

Result: negative. Literature information: ECHA Dossier

Carcinogenicity:

Method: (inhalative) OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Species: Rat; Length of test: 2 years

Result: negative. Literature information: ECHA Dossier

propane:

In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay) Result: negative.

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 11 of 18

Literature information: ECHA Dossier

Reproductive toxicity: Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Species: Rat Exposure duration: 6 w. Results: NOAEC = 12000 ppm. Literature information: ECHA Dossier

Developmental toxicity/teratogenicity: Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Species: Rat Results: NOAEC = 12000 ppm.

Literature information: ECHA Dossier

4,4'-methylenediphenyl diisocyanate, isomers and homologues:

In vitro mutagenicity/genotoxicity: Method: EU Method B.13/14 (Mutagenicity - Reverse Mutation Test Using Bacteria) Result / evaluation: negative. ; In vivo mutagenicity/genotoxicity Method: OECD Guideline 474

(Mammalian Erythrocyte Micronucleus Test). Species: Rat. Result / evaluation: negative.; Carcinogenicity:

Method: OECD 453. Species: Rat. Exposure duration: 2 years Result / evaluation: NOAEC = 0,2 mg/m³ Air.;Developmental toxicity/teratogenicity: Method: OECD 414. Species: Rat. Result / evaluation: NOAEC = 4 mg/m³ Air. Literature information: ECHA Dossier

ethanediol; ethylene glycol:

In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay) ; Result: negative.

Literature information: ECHA Dossier; Carcinogenicity:; Method: oral. Species: Mouse. Exposure duration: 2 years. Result: NOAEL = 1500 mg/kg; Literature information: ECHA Dossier; Developmental

toxicity/teratogenicity: Method: -; Species: Mouse.; Exposure duration: 20 d. Result: NOAEC = 2500 mg/m³;

Literature information: ECHA Dossier

STOT-single exposure

May cause respiratory irritation. (4,4'-methylenediphenyl diisocyanate, isomers and homologues)

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (4,4'-methylenediphenyl diisocyanate, isomers and homologues)

isobutane:

NOAEC = 4000 ppm (OECD Guideline 422) Literature information: ECHA Dossier

dimethyl ether:

Chronic inhalative toxicity: NOAEL = 47106 mg/m³ (Rat)

OECD Guideline 452

Literature information: ECHA Dossier

propane:

Subacute inhalative toxicity: Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Species: Rat Exposure duration: 6 w. Result: NOAEC

= 94000 ppm (7214 mg/m³) Literature information: ECHA Dossier

4,4'-methylenediphenyl diisocyanate, isomers and homologues:

Chronic inhalation toxicity: Method: OECD 453. Species: Rat. Exposure duration: 2 years Result / evaluation:

NOAEC = 0,2 mg/m³ Air. Literature information: ECHA Dossier

ethanediol; ethylene glycol:

Subacute oral toxicity: Method: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study);

Species: Dog.; Exposure duration: 28 d. Results: NOAEL = 2200 mg/kg(bw)/day ; Literature information: ECHA Dossier

titanium dioxide:

Subchronic inhalative toxicity:

Method: WoE

Exposure duration: 28d

Species: Rat

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 12 of 18

 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:

Method: WoE (OECD 408)

Species: Rat

Exposure duration: 90d

 Result: NOAEL \geq 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 information available.

SECTION 12: Ecological information
12.1. Toxicity

The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
9016-87-9	4,4'-methylenediphenyl diisocyanate, isomers and homologues					
	Crustacea toxicity	NOEC \geq 10 mg/l	21 d	Daphnia magna	ECHA Dossier	OECD Guideline 211
1244733-77-4	Reaction products of phosphoryl trichloride and 2-methyloxirane					
	Acute fish toxicity	LC50 (51) mg/l	96 h	Pimephales promelas	Study report (1985)	Static bioassay: method not specified
	Acute algae toxicity	ErC50 (82) mg/l	72 h	Pseudokirchneriella subcapitata	Study report (2004)	OECD Guideline 201
	Acute crustacea toxicity	EC50 131 mg/l	48 h	Daphnia magna	Study report (1985)	Static bioassay: method not specified
	Crustacea toxicity	NOEC 32 mg/l	21 d	Daphnia magna	Study report (1995)	other: OECD Test Guideline 202
	Acute bacteria toxicity	(784 mg/l)	3 h	Activated sludge	Study report (1990)	ISO 8192
75-28-5	isobutane					
	Acute fish toxicity	LC50 49,9 mg/l	96 h	Fish	ECHA Dossier	QSAR
	Acute algae toxicity	ErC50 19,37 mg/l	96 h	algae	ECHA Dossier	QSAR
	Acute crustacea toxicity	EC50 69,43 mg/l	48 h	Daphnia sp.	ECHA Dossier	QSAR
115-10-6	dimethyl ether					
	Acute fish toxicity	LC50 $>$ 4100 mg/l	96 h	Poecilia reticulata	ECHA Dossier	NEN 6504

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 13 of 18

	Acute algae toxicity	ErC50 mg/l	154,917	96 h	green algae	ECHA Dossier	ECOSAR v1.00
	Acute crustacea toxicity	EC50 mg/l	> 4400	48 h	Daphnia magna	ECHA Dossier	NEN6501
74-98-6	propane						
	Acute fish toxicity	LC50 mg/l	49,9	96 h	Fish	ECHA Dossier	QSAR
	Acute algae toxicity	ErC50 mg/l	19,37	96 h	algae	ECHA Dossier	QSAR
	Acute crustacea toxicity	EC50 mg/l	69,43	48 h	Daphnia sp.	ECHA Dossier	QSAR
107-21-1	ethanediol; ethylene glycol						
	Acute fish toxicity	LC50 mg/l	72860	96 h	Pimephales promelas	ECHA Dossier	
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	Daphnia magna	ECHA Dossier	
	Acute bacteria toxicity	(>10000 mg/l)			Pseudomonas putida	ECHA Dossier	

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
9016-87-9	4,4'-methylenediphenyl diisocyanate, isomers and homologues			
	OECD 302	0%	28	
	Not easily bio-degradable (according to OECD-criteria).			
1244733-77-4	Reaction products of phosphoryl trichloride and 2-methyloxirane			
	EU-method C.4 -D	14%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
115-10-6	dimethyl ether			
	OECD 301D / EEC 92/69 annex V, C.4-E	5%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
107-21-1	ethanediol; ethylene glycol			
	OECD 301A / ISO 7827 / EEC 92/69 annex V, C.4-A	100%	28	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)			

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
1244733-77-4	Reaction products of phosphoryl trichloride and 2-methyloxirane	2,68
75-28-5	isobutane	1,09
115-10-6	dimethyl ether	0,07
74-98-6	propane	1,09
107-21-1	ethanediol; ethylene glycol	-1,36

BCF

CAS No	Chemical name	BCF	Species	Source
1244733-77-4	Reaction products of phosphoryl trichloride and 2-methyloxirane	0,8 - 2,8	Cyprinus carpio	Japan Chemical Ind.

12.4. Mobility in soil

Diphenylmethanediisocyanate - Isomers & homologues:

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 14 of 18

Koc: 7,759

12.5. Results of PBT and vPvB assessment

The mixture contains the following substances fulfilling the PBT criteria according to UK REACH:
4,4'-methylenediphenyl diisocyanate, isomers and homologues; ethanediol; ethylene glycol.

12.6. Endocrine disrupting properties

No information available.

12.7. Other adverse effects

No information available.

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

Dispose of waste according to applicable legislation.

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

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

List of Wastes Code - used product

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

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

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

<u>14.1. UN number or ID number:</u>	UN 1950
<u>14.2. UN proper shipping name:</u>	AEROSOLS
<u>14.3. Transport hazard class(es):</u>	2
<u>14.4. Packing group:</u>	-
Hazard label:	2.1



Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Excepted quantity:	E0
Transport category:	2
Tunnel restriction code:	D

Safety Data Sheet

according to UK REACH Regulation


Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021


Product code: ZKR141GLO

Page 15 of 18


Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2.1
	
Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Excepted quantity:	E0

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2.1
14.4. Packing group:	-
Hazard label:	2.1
	
Marine pollutant:	NO
Special Provisions:	63, 190, 277, 327, 344, 381, 959
Limited quantity:	1000 mL
Excepted quantity:	E0
EmS:	F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS, FLAMMABLE
14.3. Transport hazard class(es):	2.1
14.4. Packing group:	-
Hazard label:	2.1
	
Special Provisions:	A145 A167 A802
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y203
Excepted quantity:	E0
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 16 of 18

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 3, Entry 28, Entry 56

2010/75/EU (VOC): 17,42%

2004/42/EC (VOC): 175,66 g/L

Information according to 2012/18/EU (SEVESO III): P3a FLAMMABLE AEROSOLS

Additional information

Safety Data Sheet according to UK-REACH Regulation

Aerosol directive (75/324/EEC)

UK REACH Appendix XVII, No (mixture): 3, 56

56: 1. Shall not be placed on the market after 27 December 2010, as a constituent of mixtures in concentrations equal to or greater than 0,1 % by weight of MDI for supply to the general public, unless suppliers shall ensure before the placing on the market that the packaging: (a) contains protective gloves which comply with the requirements of Council Directive 89/686/EEC; (b) is marked visibly, legibly and indelibly as follows, and without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures: "— 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. By way of derogation, paragraph 1(a) shall not apply to hot melt adhesives.

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

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

For the following substances of this mixture a chemical safety assessment has been carried out:

Reaction products of phosphoryl trichloride and 2-methyloxirane

isobutane

dimethyl ether

propane

ethanediol; ethylene glycol

SECTION 16: Other information**Changes**

Rev. 1.0; 17.03.2020, Initial release

Rev. 2.0; 30.12.2021 Changes in chapter: 1,2,3,6,8,9,10, 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)

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 17 of 18

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
 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: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations 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
Aerosol 1; H222-H229	On basis of test data
Acute Tox. 4; H332	Bridging principle "Aerosols"
Skin Irrit. 2; H315	Bridging principle "Aerosols"
Eye Irrit. 2; H319	Bridging principle "Aerosols"
Resp. Sens. 1; H334	Bridging principle "Aerosols"
Skin Sens. 1; H317	Bridging principle "Aerosols"
Carc. 2; H351	Calculation method
STOT SE 3; H335	Bridging principle "Aerosols"
STOT RE 2; H373	Bridging principle "Aerosols"

Relevant H and EUH statements (number and full text)

H220 Extremely flammable gas.
 H222 Extremely flammable aerosol.
 H229 Pressurised container: May burst if heated.
 H280 Contains gas under pressure; may explode if heated.
 H302 Harmful if swallowed.

Safety Data Sheet

according to UK REACH Regulation

Plattenkleber LORENCIC B1 LO-BOARD-FIX 1K 750ml

Revision date: 30.12.2021

Product code: ZKR141GLO

Page 18 of 18

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs (kidneys) through prolonged or repeated exposure if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH204	Contains isocyanates. May produce an allergic reaction.

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 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.)