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Revision date / version: 12.08.2020 / 0009

Replacing version dated / version: 10.04.2017 / 0008

Valid from: 12.08.2020 PDF print date: 02.06.2021 PU GLUE D4 500 G Art.: 9001939

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

1.1 Product identifier

PU GLUE D4 500 G Art.: 9001939

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

Relevant identified uses of the substance or mixture:

Adhesive

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

BTI Befestigungstechnik GmbH & Co. KG

Salzstr. 51

74653 Ingelfingen Tel.: +49 7940 141 141 Fax: +49 7940 141 9141 Email: info@bti.de Homepage: www.bti.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (BRC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Acute Tox.	4	H332-Harmful if inhaled.
STOT RE	2	H373-May cause damage to organs through prolonged or
		repeated exposure.
Eye Irrit.	2	H319-Causes serious eye irritation.
STOT SE	3	H335-May cause respiratory irritation.
Skin Irrit.	2	H315-Causes skin irritation.





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Resp. Sens. 1 H334-May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

Skin Sens. 1 H317-May cause an allergic skin reaction. 2 Carc. H351-Suspected of causing cancer.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Danger

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

P201-Obtain special instructions before use. P260-Do not breathe vapours or spray. P280-Wear protective gloves / protective clothing / eye protection / face protection. P284-Wear respiratory protection. P304+P340-IF INHALED: Remove person to fresh air and keep comfortable for breathing. P308+P313-IF exposed or concerned: Get medical advice / attention.

EUH204-Contains isocyanates. May produce an allergic reaction.

4,4'-methylenediphenyl diisocyanate Diphenylmethanediisocyanate, isomeres and homologues o-(p-isocyanatobenzyl)phenyl isocyanate Polyisocyanate prepolymer Dibutyltin dilaurate

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances

3.2 Mixtures

Polyisocyanate prepolymer





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Registration number (REACH)	
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	
CAS	
content %	40-<60
Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H332
(CLP), M-factors	Skin Irrit. 2, H315
	Eye Irrit. 2, H319
	Resp. Sens. 1, H334
	Skin Sens. 1, H317
	STOT SE 3, H335
	STOT RE 2, H373

Diphenylmethanediisocyanate, isomeres and homologues	
Registration number (REACH)	
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	
CAS	9016-87-9
content %	10-20
Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H332
(CLP), M-factors	Skin Irrit. 2, H315
	Eye Irrit. 2, H319
	Resp. Sens. 1, H334
	Skin Sens. 1, H317
	Carc. 2, H351
	STOT SE 3, H335
	STOT RE 2, H373 (respiratory system) (as
	inhalation)

4,4'-methylenediphenyl diisocyanate	
Registration number (REACH)	01-2119457014-47-XXXX
Index	615-005-00-9
EINECS, ELINCS, NLP, REACH-IT List-No.	202-966-0
CAS	101-68-8
content %	10-<20
Classification according to Regulation (EC) 1272/2008	Carc. 2, H351
(CLP), M-factors	Acute Tox. 4, H332
	STOT RE 2, H373
	Eye Irrit. 2, H319
	STOT SE 3, H335
	Skin Irrit. 2, H315
	Resp. Sens. 1, H334
	Skin Sens. 1, H317

o-(p-isocyanatobenzyl)phenyl isocyanate	
Registration number (REACH)	01-2119480143-45-XXXX
Index	615-005-00-9
EINECS, ELINCS, NLP, REACH-IT List-No.	227-534-9
CAS	5873-54-1
content %	5-<10





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Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H332
(CLP), M-factors	Skin Irrit. 2, H315
	Eye Irrit. 2, H319
	Resp. Sens. 1, H334
	Skin Sens. 1, H317
	Carc. 2, H351
	STOT SE 3, H335
	STOT RE 2, H373 (respiratory system) (as
	inhalation)

Dibutyltin dilaurate	
Registration number (REACH)	01-2119496068-27-XXXX
Index	050-030-00-3
EINECS, ELINCS, NLP, REACH-IT List-No.	201-039-8
CAS	77-58-7
content %	0,1-<0,3
Classification according to Regulation (EC) 1272/2008	Skin Sens. 1, H317
(CLP), M-factors	Eye Dam. 1, H318
	Muta. 2, H341
	Repr. 1B, H360FD
	STOT SE 1, H370 (thymus)
	STOT RE 1, H372 (immune system)
	Aquatic Acute 1, H400 (M=1)
	Aquatic Chronic 1, H410 (M=1)
	Skin Corr. 1C, H314
	Acute Tox. 4, H302

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification! For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation)

this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

If the person is unconscious, place in a stable side position and consult a doctor.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eve contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.





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4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1. In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

The following may occur: Dermatitis (skin inflammation)

Drying of the skin.

Allergic contact eczema

Asthmatic symptoms

In case of sensitivity, concentrations below the limit value may already result in asthmatic symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO2

Extinction powder

Water jet spray

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of nitrogen

Oxides of carbon

Traces possible:

Isocyanates

Hydrocyanic acid (hydrogen cyanide)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep unprotected persons away.

Ensure sufficient supply of air.

Avoid inhalation, and contact with eyes or skin.

If applicable, caution - risk of slipping.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.





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Keep moist.

Do not close packing drum.

Allow to stand for a few days in an unclosed container until reaction no longer occurs.

CO2 formation in closed tanks causes pressure to rise.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Avoid aerosol formation.

Avoid inhalation of the vapours.

Ensure good ventilation.

Avoid contact with eyes or skin.

Handle and open container with care.

No contact with products of this type in case of allergies, asthma und chronic respiratory tract disorders.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Not to be stored in gangways or stair wells.

Store product closed and only in original packing.

Avoid exposure to moist air and water.

Store cool.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

(B)	Chemical Name	Polyisocyana	te prepolymer		Content %:40-<60
W	EL-TWA: 0,02 mg/m3 (Isocyanates,	WEL-STEL: 0,07 mg/m3 (Isocyanates,		
all	(as -NCO))		all (as -NCO))		
M	onitoring procedures:		ISO 16702 (Workplace air quality – determinat	tion of t	total
			isocyanate groups in air using 2-(1-methoxypho	enylpip	erazine and
		-	liquid chromatography) - 2007		





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BMGV: 1 µmol isocyanate-derived diamine/mol creatinine in urine

(At the end of the period of exposure)

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	MDHS 25/4 (Organic isocy sampling either onto 2-(1-r fibre filters followed by so	nethoxyphenylpipera vent desorption or in	zine coated glass ato impingers and
	 analysis using high perform 	nance liquid chromat	ography) - 2015
BMGV: 1 µmol isocyanate	e-derived diamine/mol creatinine in urine	Other information:	Sen (Isocyanates,
(At the end of the period of e	exposure)	all (as -NCO))	. •
® Chemical Name	Diphenylmethanediisocyanate, isomeres	and homologues	Content %:10-20
WEL-TWA: 0,02 mg/m3 (Isocyanates, WEL-STEL: 0,07 mg/s	m3 (Isocyanates,	
all (as -NCO))	all (as -NCO))		
Monitoring procedures:			
BMGV: 1 µmol isocyanate	e-derived diamine/mol creatinine in urine	Other information:	Sen (Isocyanates,
(At the end of the period of e	exposure)	all (as -NCO))	
(B) ~	4.41 1.11 1.11		Content
Chemical Name	4,4'-methylenediphenyl diisocyanate		%:10-<20
WEL-TWA: 0,02 mg/m3 (Isocyanates, WEL-STEL: 0,07 mg/s	m3 (Isocyanates,	
all (as -NCO))	all (as -NCO))		
Monitoring procedures:	ISO 16702 (Workplace air	quality - determinati	ion of total
	isocyanate groups in air us	ing 2-(1-methoxyphe	nylpiperazine and
	 liquid chromatography) - 2 	007	
	MDHS 25/4 (Organic isoc	yanates in air – Labor	ratory method using
	sampling either onto 2-(1-r	nethoxyphenylpipera	zine coated glass
	fibre filters followed by so	vent desorption or in	nto impingers and
	analysis using high perform	nance liquid chromat	ography) - 2015 -
	 EU project BC/CEN/ENTI 	R/000/2002-16 card 7	7-4 (2004)
	- NIOSH 5521 (ISOCYANA		C) - 1994
	- NIOSH 5522 (ISOCYANA		
	- NIOSH 5525 (ISOCYANA		
	NIOSH 5525 (ISOCYANAOSHA 18 (Diisocyanates 2		

Chemical Name o-(p-isocyanatobenzyl)phenyl isocyanate			Content %:5-<10		
WEL-TWA: 0,02 mg/m3 (Isocyanates,	WEL-STEL: 0,07 mg/r	n3 (Isocyanates,		
all (as -NCO))		all (as -NCO))			
Monitoring procedures:	-				
BMGV: 1 µmol isocyanate-derived diamine/mol creatinine in urine Other information:			Sen	(Isocyanates,	
(At the end of the period of e	exposure)		all (as -NCO))		

OSHA 47 (Methylene Bisphenyl Isocyanate (MDI)) - 1984

all (as -NCO))

Other information: Sen (Isocyanates,

(B)	Chemical Name	Dibutyltin dila	nurate				Content %:0,1-<0,3
W	EL-TWA: 0,1 mg/m3 (S	n) (tin	WEL-STEL:	0,2 mg/m	3 (Sn) (tin		
compounds, organic)		compounds, o	compounds, organic)				
Me	onitoring procedures:	-					
BMGV:				Other information	: Sk ((Sn) (tin	
					compounds, organ	nic)	





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Area of application	yl diisocyanate Exposure route / Environmental compartment	Effect on health	Descript or	Value	Unit	Note
	Environment - freshwater		PNEC	1	mg/l	
	Environment - marine		PNEC	0,1	mg/l	
	Environment - soil		PNEC	1	mg/kg dw	
	Environment - sewage treatment plant		PNEC	1	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	10	mg/l	
Consumer	Human - dermal	Short term, systemic effects	DNEL	25	mg/kg bw/d	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,05	mg/m3	
Consumer	Human - oral	Short term, systemic effects	DNEL	20	mg/kg bw/d	
Consumer	Human - dermal	Short term, local effects	DNEL	17,2	mg/cm2	
Consumer	Human - inhalation	Short term, local effects	DNEL	0,05	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,025	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	0,025	mg/m3	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	50	mg/kg bw/d	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	0,1	mg/m3	
Workers / employees	Human - dermal	Short term, local effects	DNEL	28,7	mg/cm2	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	0,1	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,05	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,05	mg/m3	

o-(p-isocyanatobenzyl)phenyl isocyanate									
Area of application	Exposure route /	kposure route / Effect on health Descript Value Unit							
	Environmental		or						
	compartment								
	Environment -		PNEC	1	mg/l				
	freshwater								
	Environment - marine		PNEC	0,1	mg/l				





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	Environment - sewage treatment plant		PNEC	1	mg/l
	Environment - soil		PNEC	1	mg/kg dw
	Environment - sporadic (intermittent) release		PNEC	10	mg/l
Consumer	Human - oral	Short term, systemic effects	DNEL	20	mg/kg bw/day
Consumer	Human - dermal	Short term, local effects	DNEL	17,2	mg/cm2
Consumer	Human - dermal	Short term, systemic effects	DNEL	25	mg/kg bw/d
Consumer	Human - inhalation	Short term, local effects	DNEL	0,05	mg/m3
Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,05	mg/m3
Consumer	Human - inhalation	Long term, local effects	DNEL	0,025	mg/m3
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,025	mg/m3
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	50	mg/kg bw/d
Workers / employees	Human - dermal	Short term, local effects	DNEL	28,7	mg/cm2
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	0,1	mg/m3
Workers / employees	Human - inhalation	Short term, local effects	DNEL	0,1	mg/m3
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,05	mg/m3
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,05	mg/m3

Dibutyltin dilaurate						
Area of application	Exposure route /	Effect on health	Descript	Value	Unit	Note
	Environmental		or			
	compartment					
	Environment -		PNEC	0,05	mg/kg	
	sediment, freshwater				wet	
					weight	
	Environment -		PNEC	0,000	mg/l	
	freshwater			463		
	Environment - marine		PNEC	0,000	mg/l	
				046		
	Environment -		PNEC	0,005	mg/kg	
	sediment, marine				wet	
					weight	





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Consumer	Human - dermal	Short term, systemic effects	DNEL	0,5	mg/kg body weight/d ay
Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,02	mg/m3
Consumer	Human - oral	Short term, systemic effects	DNEL	0,01	mg/kg body weight/d ay
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,08	mg/kg body weight/d ay
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,003	mg/m3
Consumer	Human - oral	Long term, systemic effects	DNEL	0,002	mg/kg body weight/d ay
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	1	mg/kg body weight/d ay
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	0,07	mg/m3
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,2	mg/kg body weight/d ay
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,01	mg/m3

- WEL-TWA = Workplace Exposure Limit Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit Short-term exposure limit (15-minute reference period).
- (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
- ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
- (13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).





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8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN 374).

Recommended

Protective nitrile gloves (EN 374).

Minimum layer thickness in mm:

0,4

Protective gloves in butyl rubber (EN 374).

Minimum layer thickness in mm:

0.7

Permeation time (penetration time) in minutes:

>= 480

Protective hand cream recommended.

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

If OES or MEL is exceeded.

Filter A (EN 14387), code colour brown

Filter B (EN 14387), code colour grey

At high concentrations:

Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable





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Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Liquid 20°C Physical state: Colour: Brown Odour: Characteristic Odour threshold: Not determined pH-value: Not determined Melting point/freezing point: Not determined Initial boiling point and boiling range: Not determined Flash point: Not determined Evaporation rate: Not determined Flammability (solid, gas): Not determined Lower explosive limit: Not determined Upper explosive limit: Not determined Vapour pressure: Not determined Vapour density (air = 1): Not determined Density: 1,13 g/cm3 Bulk density: Not determined Solubility(ies): Not determined Water solubility: Not miscible Partition coefficient (n-octanol/water): Not determined Not determined Auto-ignition temperature: Not determined Decomposition temperature: 7500 mPas Viscosity: Not determined Explosive properties: Oxidising properties: Not determined

9.2 Other information

Miscibility: Not determined
Fat solubility / solvent: Not determined
Conductivity: Not determined
Surface tension: Not determined
Solvents content: Not determined





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SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

See also section 7.

Protect from humidity.

Strong heat

10.5 Incompatible materials

See also section 7.

Bases

Oxidizing agents

Reducing agent

Alcohols

Water

Developement of:

CO2

CO2 formation in closed tanks causes pressure to rise.

10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

PU GLUE D4 500 G						
Art.: 9001939						
Toxicity / effect	Endpoi	Value	Unit	Organism	Test method	Notes
	nt					
Acute toxicity, by oral						n.d.a.
route:						
Acute toxicity, by						n.d.a.
dermal route:						
Acute toxicity, by	ATE	1,50	mg/l/4h			Aerosol,
inhalation:						calculated
						value
Acute toxicity, by	ATE	11,06	mg/l/4h			Vapours,
inhalation:						calculated
						value
Skin corrosion/irritation:						n.d.a.
Serious eye						n.d.a.
damage/irritation:						
Respiratory or skin						n.d.a.
sensitisation:						
Germ cell mutagenicity:						n.d.a.





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Carcinogenicity:			n.d.a.
Reproductive toxicity:			n.d.a.
Specific target organ			n.d.a.
toxicity - single			
exposure (STOT-SE):			
Specific target organ			n.d.a.
toxicity - repeated			
exposure (STOT-RE):			
Aspiration hazard:			n.d.a.
Symptoms:			n.d.a.

Diphenylmethanediisocy	anate, ison	neres and h	omologues			
Toxicity / effect	Endpoi nt	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	0,31	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol, Does not conform with EU classification
Acute toxicity, by inhalation:	ATE	1,5	mg/l/4h			Expert judgement.
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosio n)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosio n)	Not irritant, Analogous conclusion, Does not conform with EU classification
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact), Analogous conclusion
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Respiratory or skin sensitisation:				Rat		Yes (inhalation)
Germ cell mutagenicity:				Rat	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative, Analogous conclusion





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Germ cell mutagenicity:				Salmonella	OECD 471	Negative
				typhimuri	(Bacterial Reverse	
				um	Mutation Test)	
Carcinogenicity:				Rat	OECD 453	Aerosol,
					(Combined	Limited
					Chronic	evidence of
					Toxicity/Carcinoge	a
					nicity Studies)	carcinogenic
					-	effect.
Reproductive toxicity:	NOAEL	4	mg/m3	Rat	OECD 414	Aerosol,
					(Prenatal	Negative
					Developmental	
					Toxicity Study)	
Specific target organ	LOAEL	1		Rat	OECD 453	Aerosol,
toxicity - repeated					(Combined	Analogous
exposure (STOT-RE):					Chronic	conclusion
					Toxicity/Carcinoge	
					nicity Studies)	
Specific target organ	NOAEL	0,2		Rat	OECD 453	Aerosol,
toxicity - repeated					(Combined	Analogous
exposure (STOT-RE):					Chronic	conclusion
					Toxicity/Carcinoge	
					nicity Studies)	
Aspiration hazard:						Negative
Specific target organ						Target
toxicity - single						organ(s):
exposure (STOT-SE),						respiratory
inhalative:						system, May
						cause
						respiratory
						irritation.
Specific target organ						Target
toxicity - repeated						organ(s):
exposure (STOT-RE),						respiratory
inhalat.:						system,
						Positive

4,4'-methylenediphenyl Toxicity / effect	Endpoi	Value	Unit	Organism	Test method	Notes
•	nt					
Acute toxicity, by oral	LD50	>10000	mg/kg	Rat	OECD 401 (Acute	
route:					Oral Toxicity)	
Acute toxicity, by oral	LD50	>2000	mg/kg	Rat	Regulation (EC)	
route:					440/2008 B.1	
					(ACUTE ORAL	
					TOXICITY)	
Acute toxicity, by	LD50	>9400	mg/kg	Rabbit	OECD 402 (Acute	
dermal route:					Dermal Toxicity)	
Acute toxicity, by	LC50	>2,24	mg/l/4h	Rat	OECD 403 (Acute	Aerosol
inhalation:					Inhalation	
					Toxicity)	





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Acute toxicity, by inhalation:	LC50	0,368	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Does not conform with EU classification
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosio n)	Irritant, Analogous conclusion
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosio n)	Irritant, Analogous conclusion
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact), Analogous conclusion
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (inhalation and skin contact), Analogous conclusion
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Carcinogenicity:					OECD 453 (Combined Chronic Toxicity/Carcinoge nicity Studies)	Analogous conclusion, Limited evidence of a carcinogenic effect.
Reproductive toxicity:	NOAEL	4	mg/m3	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion
Symptoms:						respiratory distress, coughing, mucous membrane irritation
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Irritation of the respiratory tract





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Specific target organ			Irritation of
toxicity - single			the
exposure (STOT-SE),			respiratory
inhalative:			tract, Target
			organ(s):
			respiratory
			system

o-(p-isocyanatobenzyl)pl	henyl isocy	anate				
Toxicity / effect	Endpoi nt	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	Regulation (EC) 440/2008 B.1 (ACUTE ORAL TOXICITY)	Analogous conclusion
Acute toxicity, by dermal route:	LD50	>9400	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	Analogous conclusion
Acute toxicity, by inhalation:	LC50	0,387	mg/l/4h	Rat		Aerosol, Does not conform with EU classification
Acute toxicity, by inhalation:	ATE	1,5	mg/l/4h			Aerosol, Expert judgement.
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosio n)	Skin Irrit. 2, Analogous conclusion
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosio n)	Not irritant, Analogous conclusion, Does not conform with EU classification
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact), Analogous conclusion
Respiratory or skin sensitisation:				Guinea pig		Yes (inhalation), Analogous conclusion
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact), Analogous conclusion





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Germ cell mutagenicity:				Salmonella typhimuri um	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Rat	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative, Analogous conclusion
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinoge nicity Studies)	Aerosol, Analogous conclusion, Carc. 2
Reproductive toxicity:	NOAEL	4	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Aerosol, Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE):	LOAEL	1	mg/m3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinoge nicity Studies)	Aerosol, Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	0,2	mg/m3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinoge nicity Studies)	Aerosol, Analogous conclusion
Symptoms:						mucous membrane irritation, breathing difficulties, coughing, asthmatic symptoms
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Target organ(s): respiratory system, Irritation of the respiratory tract
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:						Target organ(s): respiratory system, Positive





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SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

Art.: 9001939 Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to	•						n.d.a.
fish:							
12.1. Toxicity to							n.d.a.
daphnia:							
12.1. Toxicity to							n.d.a.
algae:							
12.2. Persistence							With water
and degradability:							at the
•							interface,
							transforms
							slowly with
							formation of
							CO2 into a
							firm,
							insoluble
							reaction
							product with
							a high
							melting
							point
							(polycarbam
							de).
							According
							to
							experience
							available to
							date,
							polycarbami
							de is inert
							and non-
							degradable.
12.3.							n.d.a.
Bioaccumulative							11.0.0.
potential:							
12.4. Mobility in							n.d.a.
soil:							11.0.0.
12.5. Results of							n.d.a.
PBT and vPvB							
assessment							
12.6. Other							n.d.a.
adverse effects:							
Other information:							According
Care miorimunoli.							to the recipe
							contains no
							AOX.





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Other information:				DOC-
				elimination
				degree(comp
				lexing
				organic
				substance)>=
				80%/28d:
				n.a.

Diphenylmethaneo	diisocyanate, i	someres	and hom	ologues			
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Other organisms:	NOEC/NO	14d	>1000	mg/kg	Avena sativa	OECD 208	
	EL					(Terrestrial	
						Plants,	
						Growth Test)	
12.1. Toxicity to	LC50	96h	>1000	mg/l	Brachydanio	OECD 203	
fish:					rerio	(Fish, Acute	
						Toxicity Test)	
12.1. Toxicity to	NOEC/NO	21d	>10	mg/l	Daphnia	OECD 202	
daphnia:	EL				magna	(Daphnia sp.	
						Acute	
						Immobilisatio	
						n Test)	
12.1. Toxicity to	EC50	24h	>1000	mg/l	Daphnia	OECD 202	
daphnia:					magna	(Daphnia sp.	
						Acute	
						Immobilisatio	
						n Test)	
12.1. Toxicity to	ErC50	72h	>1640	mg/l	Scenedesmus	OECD 201	
algae:					subspicatus	(Alga,	
						Growth	
						Inhibition	
						Test)	





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12.2. Persistence and degradability:		28d	0	%	activated sludge	OECD 302 C (Inherent Biodegradabil ity - Modified MITI Test (II))	Not biodegradabl e, According to experience available to date, polycarbami de is inert and non-degradable., With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbami de).
12.3. Bioaccumulative potential:	BCF	42d	<14		Cyprinus carpio	OECD 305 (Bioconcentra tion - Flow- Through Fish Test)	Not to be expected
12.5. Results of PBT and vPvB assessment							Negative
Toxicity to bacteria:	EC50	3h	>100	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other organisms:	NOEC/NO EL	14d	>1000	mg/kg	Lactuca sativa	OECD 208 (Terrestrial Plants, Growth Test)	





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Toxicity to annelids:	NOEC/NO EL	14d	>1000	mg/kg	Lumbricus terrestris	OECD 207 (Earthworm, Acute	
						Toxicity	
						Tests)	

4,4'-methylenedip							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to	LC50	96h	>1000	mg/l	Brachydanio	OECD 203	
fish:					rerio	(Fish, Acute	
						Toxicity Test)	
12.1. Toxicity to	LC0	96h	>1000	mg/l	Brachydanio	OECD 203	Analogous
fish:				_	rerio	(Fish, Acute	conclusion
						Toxicity Test)	
12.1. Toxicity to	EC50	24h	>1000	mg/l	Daphnia	OECD 202	Analogous
daphnia:					magna	(Daphnia sp.	conclusion
						Acute	
						Immobilisatio	
						n Test)	
12.1. Toxicity to	EC50	72h	1,5	mg/l		OECD 201	
algae:				_		(Alga,	
						Growth	
						Inhibition	
						Test)	
12.1. Toxicity to	EC50	72h	1640	mg/l	Desmodesmus	OECD 201	Analogous
algae:				_	subspicatus	(Alga,	conclusion
						Growth	
						Inhibition	
						Test)	
12.1. Toxicity to	NOEC/NO	72h	1640	mg/l	Desmodesmus	OECD 201	Analogous
algae:	EL				subspicatus	(Alga,	conclusion
						Growth	
						Inhibition	
						Test)	





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		ı			Г		
12.2. Persistence		28d	0	%		OECD 302 C	With water
and degradability:						(Inherent	at the
						Biodegradabil	interface,
						ity - Modified	transforms
						MITI Test	slowly with
						(II))	formation of
							CO2 into a
							firm,
							insoluble
							reaction
							product with
							a high
							melting
							point
							(polycarbami
							de).,
							According
							to
							experience
							available to
							date,
							polycarbami
							de is inert
							and non-
							degradable.
							_
12.2 Persistence	BOD	28d	0	%		OFCD 302 C	-
12.2. Persistence	BOD	28d	0	%		OECD 302 C	With water
12.2. Persistence and degradability:	BOD	28d	0	%		(Inherent	With water at the
	BOD	28d	0	%		(Inherent Biodegradabil	With water at the interface,
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified	With water at the interface, transforms
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified	With water at the interface, transforms slowly with formation of
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm,
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbami
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbami de).,
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbami de)., According
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbami de)., According to
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbami de)., According to experience
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbami de)., According to experience available to
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbami de)., According to experience available to date,
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbami de)., According to experience available to date, polycarbami
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbami de)., According to experience available to date, polycarbami de is inert
	BOD	28d	0	%		(Inherent Biodegradabil ity - Modified MITI Test	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbami de)., According to experience available to date, polycarbami





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10.2	DCE	20.1	200		C	OECD 205	A4 _1 1
12.3. Bioaccumulative potential:	BCF	28d	200		Cyprinus caprio	OECD 305 (Bioconcentra tion - Flow- Through Fish Test)	A notable biological accumulation potential has to be expected (LogPow > 3).
12.3. Bioaccumulative potential:	Log Pow		5,22			OECD 117 (Partition Coefficient (noctanol/water) - HPLC method)	A notable biological accumulation potential has to be expected (LogPow > 3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	3h	>100	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Toxicity to bacteria:	EC50	3h	>100	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	Analogous conclusion
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.





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Toxicity to	EC50	14d	>1000	mg/kg	Eisenia	OECD 207
annelids:					foetida	(Earthworm,
						Acute
						Toxicity
						Tests)

o-(p-isocyanatoben	zyl)phenyl iso	ocyanate					
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to	LC50	96h	>1000	mg/l	Brachydanio	OECD 203	Analogous
fish:					rerio	(Fish, Acute	conclusion
						Toxicity Test)	
12.1. Toxicity to	EC50	24h	>1000	mg/l	Daphnia	OECD 202	Analogous
daphnia:					magna	(Daphnia sp.	conclusion
						Acute	
						Immobilisatio	
						n Test)	
12.1. Toxicity to	NOEC/NO	21d	>10	mg/l	Daphnia	OECD 202	Analogous
daphnia:	EL				magna	(Daphnia sp.	conclusion
						Acute	
						Immobilisatio	
						n Test)	
12.1. Toxicity to	ErC50	72h	>1640	mg/l	Scenedesmus	OECD 201	Analogous
algae:					subspicatus	(Alga,	conclusion
						Growth	
						Inhibition	
						Test)	





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12.2. Persistence		28d	0	%		OECD 302 C	Not
		Zou	0	70		(Inherent	Not biodegradabl
and degradability:							_
						Biodegradabil	e,
						ity - Modified	Analogous
						MITI Test	conclusion,
						(II))	According
							to
							experience
							available to
							date,
							polycarbami
							de is inert
							and non-
							degradable.,
							With water
							at the
							interface,
							transforms
							slowly with
							formation of
							CO2 into a
							firm,
							insoluble
							reaction
							product with
							a high
							melting
							point
							(polycarbami
10.2	DCE	20.1	200			OECD 205	de).
12.3.	BCF	28d	200		Cyprinus	OECD 305	Not to be
Bioaccumulative					caprio	(Bioconcentra	expected,
potential:						tion - Flow-	Analogous
						Through Fish	conclusion
12.5. Results of						Test)	No DDT
							No PBT
PBT and vPvB							substance,
assessment							No vPvB
Toxicity to	EC50	3h	>100	mg/l	activated	OECD 209	substance Analogous
bacteria:	ECSU	311	/100	IIIg/I	sludge	(Activated	conclusion
vacteria.					siuuge		Conclusion
						Sludge,	
						Respiration	
						Inhibition	
						Test (Carbon	
						and	
						Ammonium	
						Oxidation))	





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Other organisms:	NOEC/NO	14d	>1000	mg/kg	Avena sativa	OECD 208	Analogous
	EL					(Terrestrial	conclusion
						Plants,	
						Growth Test)	
Other organisms:	NOEC/NO	14d	>1000	mg/kg	Lactuca sativa	OECD 208	Analogous
	EL					(Terrestrial	conclusion
						Plants,	
						Growth Test)	
Other information:	H (Henry)		0,022				
			9				
Toxicity to	NOEC/NO	14d	>1000	mg/kg	Eisenia	OECD 207	Analogous
annelids:	EL				foetida	(Earthworm,	conclusion
						Acute	
						Toxicity	
						Tests)	

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no .:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be

allocated under certain circumstances. (2014/955/EU)

08 04 09 waste adhesives and sealants containing organic solvents or other hazardous substances

08 05 01 waste isocyanates

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

14.1. UN number: n.a.

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):n.a.14.4. Packing group:n.a.Classification code:n.a.LQ:n.a.

14.5. Environmental hazards: Not applicable





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Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):n.a.14.4. Packing group:n.a.Marine Pollutant:n.a

14.5. Environmental hazards: Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a. 14.4. Packing group: n.a.

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

Observe restrictions:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!

Regulation (EC) No 1907/2006, Annex XVII

Diphenylmethanediisocyanate, isomeres and homologues

4,4'-methylenediphenyl diisocyanate

o-(p-isocyanatobenzyl)phenyl isocyanate

Dibutyltin dilaurate

Regulation (EU) No 649/2012 'concerning the export and import of hazardous chemicals' must be adhered to, as the product contains a substance that falls within the scope of this Regulation.

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!

Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC): 0 %

Observe the youth employment protection legislation.

Observe maternity protection legislation.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 2, 3, 8, 9, 11, 12, 15

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.





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Classification and processes used to derive the classification of the mixture in accordance with the ordinance $(EG)\ 1272/2008\ (CLP)$:

Classification in accordance with regulation (EC)	Evaluation method used
No. 1272/2008 (CLP)	
Acute Tox. 4, H332	Classification according to calculation procedure.
STOT RE 2, H373	Classification according to calculation procedure.
Eye Irrit. 2, H319	Classification according to calculation procedure.
STOT SE 3, H335	Classification according to calculation procedure.
Skin Irrit. 2, H315	Classification according to calculation procedure.
Resp. Sens. 1, H334	Classification according to calculation procedure.
Skin Sens. 1, H317	Classification according to calculation procedure.
Carc. 2, H351	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H314 Causes severe skin burns and eye damage.

H360FD May damage fertility. May damage the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure by inhalation.

H302 Harmful if swallowed.

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.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H370 Causes damage to organs.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Acute Tox. — Acute toxicity - inhalation

STOT RE — Specific target organ toxicity - repeated exposure

Eye Irrit. — Eye irritation

STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation

Skin Irrit. — Skin irritation

Resp. Sens. — Respiratory sensitization

Skin Sens. — Skin sensitization

Carc. — Carcinogenicity

Eye Dam. — Serious eye damage

Muta. — Germ cell mutagenicity

Repr. — Reproductive toxicity

STOT SE — Specific target organ toxicity - single exposure

Aquatic Acute — Hazardous to the aquatic environment - acute

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Skin Corr. — Skin corrosion

Acute Tox. — Acute toxicity - oral



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Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European

Agreement concerning the International Carriage of Dangerous Goods by Road)

AOX Adsorbable organic halogen compounds

approx. approximately Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BSEF The International Bromine Council

bw body weight

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EC European CommunityECHA European Chemicals AgencyEEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

etc. et cetera EU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

IARC International Agency for Research on Cancer

IATA International Air Transport Association

IBC (Code) International Bulk Chemical (Code)

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform Chemical Information Database

IUPACInternational Union for Pure Applied Chemistry

LC50 Lethal Concentration to 50 % of a test population

LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicable





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n.av. not available n.c. not checked

no data available

OECD Organisation for Economic Co-operation and Development

org. organic

PBT persistent, bioaccumulative and toxic

PE Polyethylene

PNEC Predicted No Effect Concentration

ppm parts per million PVC Polyvinylchloride

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Tel. Telephone

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

wwt weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.