Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
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PU GLUE D4 500 G
Art.: 9001939

Safety data sheet
according to Regulation (EC) No 1907/2006, Annex II

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)
+1 872 5888271 (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.

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.
Carc.	2	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.

As from 24 August 2023 adequate training is required before industrial or professional use.
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 %).
The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances
n.a.
3.2 Mixtures

Polyisocyanate prepolymer	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	---
CAS	---
content %	40-<60
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H332 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 (CLP), M-factors	Acute Tox. 4, H332 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)
Specific Concentration Limits and ATE	Skin Irrit. 2, H315: >=5 % Eye Irrit. 2, H319: >=5 % Resp. Sens. 1, H334: >=0,1 % STOT SE 3, H335: >=5 % ATE (as inhalation): 1,5 mg/l/4h

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 (CLP), M-factors	Acute Tox. 4, H332 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

Specific Concentration Limits and ATE	Skin Irrit. 2, H315: >=5 % Eye Irrit. 2, H319: >=5 % Resp. Sens. 1, H334: >=0,1 % STOT SE 3, H335: >=5 %

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
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H332 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)
Specific Concentration Limits and ATE	Skin Irrit. 2, H315: >=5 % Eye Irrit. 2, H319: >=5 % Resp. Sens. 1, H334: >=0,1 % STOT SE 3, H335: >=5 % ATE (as inhalation, Aerosol): 1,5 mg/l/4h

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 (CLP), M-factors	Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 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)

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.
Eye 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.
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
For personal protective equipment see Section 8.
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
6.1.1 For non-emergency personnel
In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.
Ensure sufficient ventilation, remove sources of ignition.
Avoid dust formation with solid or powder products.
Leave the danger zone if possible, use existing emergency plans if necessary.
Keep unprotected persons away.
Ensure sufficient supply of air.
Avoid inhalation, and contact with eyes or skin.
If applicable, caution - risk of slipping.
6.1.2 For emergency responders
See section 8 for suitable protective equipment and material specifications.
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.
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

GB	**Chemical Name**	Polyisocyanate prepolymer	Content %:40-<60
WEL-TWA: 0,02 mg/m3 (Isocyanates, all (as -NCO))	WEL-STEL: 0,07 mg/m3 (Isocyanates, all (as -NCO))	---	
Monitoring procedures:	ISO 16702 (Workplace air quality – determination of total isocyanate groups in air using 2-(1-methoxyphenylpiperazine and liquid chromatography) - 2007 - MDHS 25/4 (Organic isocyanates in air – Laboratory method using sampling either onto 2-(1-methoxyphenylpiperazine coated glass fibre filters followed by solvent desorption or into impingers and analysis using high performance liquid chromatography) - 2015		
BMGV: 1 µmol isocyanate-derived diamine/mol creatinine in urine (At the end of the period of exposure)	Other information: Sen (Isocyanates, all (as -NCO))		

GB	**Chemical Name**	Diphenylmethanediisocyanate, isomeres and homologues	Content %:10-20
WEL-TWA: 0,02 mg/m3 (Isocyanates, all (as -NCO))	WEL-STEL: 0,07 mg/m3 (Isocyanates, all (as -NCO))	---	
Monitoring procedures:	---		
BMGV: 1 µmol isocyanate-derived diamine/mol creatinine in urine (At the end of the period of exposure)	Other information: Sen (Isocyanates, all (as -NCO))		

GB	**Chemical Name**	4,4'-methylenediphenyl diisocyanate	Content %:10-<20
WEL-TWA: 0,02 mg/m3 (Isocyanates, all (as -NCO))	WEL-STEL: 0,07 mg/m3 (Isocyanates, all (as -NCO))	---	
Monitoring procedures:	ISO 16702 (Workplace air quality – determination of total isocyanate groups in air using 2-(1-methoxyphenylpiperazine and liquid chromatography) - 2007 - MDHS 25/4 (Organic isocyanates in air – Laboratory method using sampling either onto 2-(1-methoxyphenylpiperazine coated glass fibre filters followed by solvent desorption or into impingers and analysis using high performance liquid chromatography) - 2015 - - EU project BC/CEN/ENTR/000/2002-16 card 7-4 (2004) - NIOSH 5521 (ISOCYANATES, MONOMERIC) - 1994 - NIOSH 5522 (ISOCYANATES) - 1998 - NIOSH 5525 (ISOCYANATES, TOTAL (MAP)) - 2003 - OSHA 18 (Diisocyanates 2,4-TDI and MDI) - 1980 - OSHA 47 (Methylene Bisphenyl Isocyanate (MDI)) - 1984		

BMGV: 1 µmol isocyanate-derived diamine/mol creatinine in urine (At the end of the period of exposure)	Other information: Sen (Isocyanates, all (as -NCO))

GB	**Chemical Name**	o-(p-isocyanatobenzyl)phenyl isocyanate	Content %:5-<10

WEL-TWA: 0,02 mg/m3 (Isocyanates, all (as -NCO))	WEL-STEL: 0,07 mg/m3 (Isocyanates, all (as -NCO))	---
Monitoring procedures: ---		
BMGV: 1 µmol isocyanate-derived diamine/mol creatinine in urine (At the end of the period of exposure)	Other information: Sen (Isocyanates, all (as -NCO))	

GB	**Chemical Name**	Dibutyltin dilaurate	Content %:0,1-<0,3

WEL-TWA: 0,1 mg/m3 (Sn) (tin compounds, organic)	WEL-STEL: 0,2 mg/m3 (Sn) (tin compounds, organic)	---
Monitoring procedures: ---		
BMGV: ---	Other information: Sk (Sn) (tin compounds, organic)	

4,4'-methylenediphenyl diisocyanate						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**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 / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	1	mg/l	
	Environment - marine		PNEC	0,1	mg/l	
	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 / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - sediment, freshwater		PNEC	0,05	mg/kg wet weight	
	Environment - freshwater		PNEC	0,000 463	mg/l	
	Environment - marine		PNEC	0,000 046	mg/l	
	Environment - sediment, marine		PNEC	0,005	mg/kg wet weight	
Consumer	Human - dermal	Short term, systemic effects	DNEL	0,5	mg/kg body weight/day	
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/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,08	mg/kg body weight/day	
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/day	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	1	mg/kg body weight/day	
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/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,01	mg/m3	

GB 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).

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 ISO 374).
Recommended
Protective nitrile gloves (EN ISO 374).
Minimum layer thickness in mm:
0,4
Protective gloves in butyl rubber (EN ISO 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

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

Physical state:	Liquid 20°C
Colour:	Brown
Odour:	Characteristic
Melting point/freezing point:	There is no information available on this parameter.
Boiling point or initial boiling point and boiling range:	There is no information available on this parameter.
Flammability:	Not combustible.
Lower explosion limit:	There is no information available on this parameter.
Upper explosion limit:	There is no information available on this parameter.
Flash point:	There is no information available on this parameter.
Auto-ignition temperature:	There is no information available on this parameter.
Decomposition temperature:	There is no information available on this parameter.
pH:	Mixture is non-soluble (in water).
Kinematic viscosity:	7500 mPas (Dynamic viscosity)

Solubility:	Not miscible
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	There is no information available on this parameter.
Density and/or relative density:	1,13 g/cm3
Relative vapour density:	There is no information available on this parameter.
Particle characteristics:	Does not apply to liquids.

9.2 Other information

Explosives:	There is no information available on this parameter.
Oxidising liquids:	There is no information available on this parameter.

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 hazard classes as defined in Regulation (EC) No 1272/2008
Possibly more information on health effects, see Section 2.1 (classification).

PU GLUE D4 500 G Art.: 9001939						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.

Acute toxicity, by inhalation:	ATE	1,50	mg/l/4h			Aerosol, calculated value
Acute toxicity, by inhalation:	ATE	11,06	mg/l/4h			Vapours, calculated value
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Diphenylmethanediisocyanate, isomeres and homologues						
Toxicity / effect	**Endpoint**	**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/Corrosion)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	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
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Aerosol, Limited evidence of a carcinogenic effect.
Reproductive toxicity:	NOAEL	4	mg/m3	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Aerosol, Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	LOAEL	1		Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Aerosol, Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	0,2		Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Aerosol, Analogous conclusion
Aspiration hazard:						Negative
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Target organ(s): respiratory system, May cause respiratory irritation.
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:						Target organ(s): respiratory system, Positive

4,4'-methylenediphenyl diisocyanate

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>10000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	Regulation (EC) 440/2008 B.1 (ACUTE ORAL TOXICITY)	
Acute toxicity, by dermal route:	LD50	>9400	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>2,24	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol
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/Corrosion)	Irritant, Analogous conclusion
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	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/Carcinogenicity 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
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Irritation of the respiratory tract, Target organ(s): respiratory system

o-(p-isocyanatobenzyl)phenyl isocyanate						
Toxicity / effect	**Endpoint**	**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/Corrosion)	Skin Irrit. 2, Analogous conclusion
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	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
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Rat	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative, Analogous conclusionmale
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Aerosol, Analogous conclusion, Carc. 2
Reproductive toxicity:	NOAEL	4-12	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Aerosol, Analogous conclusion
Symptoms:						mucous membrane irritation, breathing difficulties, coughing, asthmatic symptoms
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	0,2	mg/m3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Aerosol, Analogous conclusion, Target organ(s): respiratory system
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	LOAEL	1	mg/m3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Aerosol, Analogous conclusion, Target organ(s): respiratory system

11.2. Information on other hazards

PU GLUE D4 500 G Art.: 9001939						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Endocrine disrupting properties:						Does not apply to mixtures.
Other information:						No other relevant information available on adverse effects on health.

SECTION 12: Ecological information

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

PU GLUE D4 500 G Art.: 9001939							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.

12.2. Persistence and degradability:							With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarbamide). According to experience available to date, polycarbamide is inert and non-degradable.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Endocrine disrupting properties:							Does not apply to mixtures.
12.7. Other adverse effects:							No information available on other adverse effects on the environment.
Other information:							According to the recipe, contains no AOX.

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

Diphenylmethanediisocyanate, isomeres and homologues							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Other organisms:	NOEC/NOEL	14d	>1000	mg/kg	Avena sativa	OECD 208 (Terrestrial Plants, Growth Test)	
12.1. Toxicity to fish:	LC50	96h	>1000	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	EC50	24h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	ErC50	72h	>1640	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	

12.2. Persistence and degradability:		28d	0	%	activated sludge	OECD 302 C (Inherent Biodegradability - Modified MITI Test (II))	Not biodegradable, According to experience available to date, polycarbamide 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 (polycarbamide).
12.3. Bioaccumulative potential:	BCF	42d	<14		Cyprinus carpio	OECD 305 (Bioconcentration - 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/NOEL	14d	>1000	mg/kg	Lactuca sativa	OECD 208 (Terrestrial Plants, Growth Test)	

Toxicity to annelids:	NOEC/NOEL	14d	>1000	mg/kg	Lumbricus terrestris	OECD 207 (Earthworm, Acute Toxicity Tests)	

4,4'-methylenediphenyl diisocyanate							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	>1000	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	LC0	96h	>1000	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	Analogous conclusion
12.1. Toxicity to daphnia:	EC50	24h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Analogous conclusion
12.1. Toxicity to algae:	EC50	72h	1,5	mg/l		OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EC50	72h	1640	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion
12.1. Toxicity to algae:	NOEC/NOEL	72h	1640	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion

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

12.3. Bioaccumulative potential:	BCF	28d	200		Cyprinus caprio	OECD 305 (Bioconcentration - 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 (n-octanol/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.

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

o-(p-isocyanatobenzyl)phenyl isocyanate							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	>1000	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	Analogous conclusion
12.1. Toxicity to daphnia:	EC50	24h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Analogous conclusion
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Analogous conclusion
12.1. Toxicity to algae:	ErC50	72h	>1640	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion

12.2. Persistence and degradability:		28d	0	%		OECD 302 C (Inherent Biodegradability - Modified MITI Test (II))	Not biodegradable, Analogous conclusion, According to experience available to date, polycarbamide 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 (polycarbamide).
12.3. Bioaccumulative potential:	BCF	28d	200		Cyprinus caprio	OECD 305 (Bioconcentration - Flow-Through Fish Test)	Not to be expected, Analogous conclusion
12.4. Mobility in soil:	H (Henry)		0,0229	Pa*m3/mol			
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))	Analogous conclusion

Other organisms:	NOEC/NOEL	14d	>1000	mg/kg	Avena sativa	OECD 208 (Terrestrial Plants, Growth Test)	Analogous conclusion
Other organisms:	NOEC/NOEL	14d	>1000	mg/kg	Lactuca sativa	OECD 208 (Terrestrial Plants, Growth Test)	Analogous conclusion
Toxicity to annelids:	NOEC/NOEL	14d	>1000	mg/kg	Eisenia foetida	OECD 207 (Earthworm, Acute Toxicity Tests)	Analogous conclusion

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 or ID 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
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. Maritime transport in bulk according to IMO instruments

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 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:	1-16

These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.

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) No. 1272/2008 (CLP)	Evaluation method used
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
Acute Tox. — Acute toxicity - oral
Skin Corr. — Skin corrosion
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

Key literature references and sources for data:
Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.
Guidelines for the preparation of safety data sheets as amended (ECHA).

Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).
Safety data sheets for the constituent substances.
ECHA Homepage - Information about chemicals.
GESTIS Substance Database (Germany).
German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).
EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.
National Lists of Occupational Exposure Limits for each country as amended.
Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

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)
BCF Bioconcentration factor
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
DOC Dissolved organic carbon
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)
EC European Community
ECHA European Chemicals Agency
ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect
EEC 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)
ErCx, EμCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)

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
Koc Adsorption coefficient of organic carbon in the soil
Kow octanol-water partition coefficient
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
IUPAC International 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)
Log Koc Logarithm of adsorption coefficient of organic carbon in the soil
Log Kow, Log Pow Logarithm of octanol-water partition coefficient
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute for Occupational Safety and Health (USA)
NLP No-longer-Polymer
NOEC, NOEL No Observed Effect Concentration/Level
OECD Organisation for Economic Co-operation and Development
org. organic
OSHA Occupational Safety and Health Administration (USA)
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
TOC Total organic carbon
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
wwt wet 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.