

(TRADEPUR LTM4)

## 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

**TRADEPUR LTM4  
(PURLTM4)**

**UFI: D300-D0C2-X002-23QW**

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

##### Relevant identified uses of the substance or mixture:

Adhesive  
Sector of use [SU]:  
SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

##### Uses advised against:

No information available at present.

#### 1.3 Details of the supplier of the safety data sheet

Trade Grade Products Ltd, 10 Victory Close, Woolsbridge Industrial Park  
Three Legged Cross, Wimborne, Dorset, BH21 6SX  
Tel: 01202 820177 Fax: 01202 814011  
sales@theglupeople.co.uk  
Qualified person's e-mail address: jon@theglupeople.co.uk  
Please DO NOT use for requesting Safety Data Sheets.

#### 1.4 Emergency telephone number

##### Emergency information services / official advisory body:

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##### Telephone number of the company in case of emergencies:

+44 (0) 1202 820177

### 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
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.
STOT RE	2	H373-May cause damage to organs through prolonged or repeated exposure by inhalation (respiratory tract).

#### 2.2 Label elements

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



**Danger**

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. H373-May cause damage to organs through prolonged or repeated exposure by inhalation (respiratory tract).

P201-Obtain special instructions before use. P260-Do not breathe vapours or spray. P280-Wear protective gloves / protective clothing and eye protection / face protection. P284-Wear respiratory protection.

P302+P352-IF ON SKIN: Wash with plenty of water and soap. P304+P340-IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313-IF exposed or concerned: Get medical advice / attention.

EUH204-Contains isocyanates. May produce an allergic reaction.

Dibutyl tin dilaurate  
Methylenediphenyl diisocyanate, modified

#### 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 Substance

n.a.

#### 3.2 Mixture

Methylenediphenyl diisocyanate, modified	
Registration number (REACH)	01-2119457013-49-XXXX
Index	---
EINECS, ELINCS, NLP	500-040-3 (NLP)
CAS	25686-28-6
content %	10- $\leq$ 25
Classification according to Regulation (EC) 1272/2008 (CLP)	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Acute Tox. 4, H332 Resp. Sens. 1, H334 STOT SE 3, H335 Carc. 2, H351 STOT RE 2, H373 (respiratory tract) (as inhalation)

Propylene carbonate	
Registration number (REACH)	01-2119537232-48-XXXX
Index	607-194-00-1
EINECS, ELINCS, NLP	203-572-1
CAS	108-32-7
content %	1-5
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319

Dibutyl tin dilaurate	
Registration number (REACH)	01-2119496068-27-XXXX
Index	050-030-00-3
EINECS, ELINCS, NLP	201-039-8
CAS	77-58-7
content %	0,1- $\leq$ 0,25
Classification according to Regulation (EC) 1272/2008 (CLP)	Muta. 2, H341 Repr. 1B, H360FD Skin Corr. 1C, H314 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) Skin Sens. 1, H317 STOT SE 1, H370 STOT RE 1, H372 (immune system) Eye Dam. 1, H318

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 3.1/3.2 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

##### 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.  
Respiratory arrest - Artificial respiration apparatus necessary.

##### Skin contact

Wipe off residual product carefully with a soft, dry cloth.  
Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.  
Dab away with polyethylene glycol 400

##### Eye contact

Remove contact lenses.  
Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

##### Ingestion

Rinse the mouth thoroughly with water.  
Do not induce vomiting - give copious water to drink. Consult doctor immediately.  
Never pour anything into the mouth of an unconscious person!

#### 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.

The following may occur:

Dermatitis (skin inflammation)  
Drying of the skin.  
Allergic contact eczema  
Discoloration of the skin  
Irritant to mucosa of the nose and throat  
Coughing  
Headaches  
Effect on the central nervous system  
Asthmatic symptoms  
In case of sensitivity, concentrations below the limit value may already result in asthmatic symptoms.  
Respiratory distress

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

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

In case of irritation of the lungs, perform first-aid with controlled-dosage aerosol dexamethasone.

Pulmonary oedema prophylaxis

Medical supervision necessary due to possibility of delayed reaction.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

CO<sub>2</sub>  
Extinction powder  
Foam  
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 carbon  
Oxides of nitrogen



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Revision date / version: 18.08.2017 / 0009

Replacing version dated / version: 07.03.2017 / 0008

Valid from: 18.08.2017

PDF print date: 22.08.2017

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Isocyanates

Hydrocyanic acid (hydrogen cyanide)

Toxic gases

Danger of bursting (explosion) when heated

### 5.3 Advice for firefighters

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

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

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

Prevent from entering drainage system.

If accidental entry into drainage system occurs, inform responsible authorities.

### 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.

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

Keep moist.

Do not close packing drum.

CO<sub>2</sub> 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

Ensure good ventilation.

Avoid inhalation of the vapours.

If applicable, suction measures at the workstation or on the processing machine necessary.

Avoid contact with eyes or skin.

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.

Keep protected from direct sunlight and temperatures over 50°C.

Only store at temperatures from 15°C to 25°C.

Store in a dry place.


### 7.3 Specific end use(s)


Adhesive


## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

GB	Chemical Name	Methylenediphenyl diisocyanate, modified		Content %:10- <25
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 urinary diamine/mol creatinine in urine (Isocyanate, post task)			Other information: ---	

	Chemical Name	Dibutyl tin dilaurate		Content %0,1- <0,25
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		

 Chemical Name	Calcium carbonate		Content %:
WEL-TWA: 4 mg/m3 (respirable dust), 10 mg/m3 (total inhalable dust)	WEL-STEL: ---	---	
Monitoring procedures: ---			
BMGV: ---		Other information: ---	

 Chemical Name	Silica, amorphous		Content %:
WEL-TWA: 6 mg/m3 (total inh. dust), 2,4 mg/m3 (resp. dust)	WEL-STEL: ---	---	
Monitoring procedures: ---			
BMGV: ---		Other information: ---	

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 (2017/164/EU), (9) = Respirable fraction (2017/164/EU). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).

(8) = Inhalable fraction (2017/164/EU). (9) = Respirable fraction (2017/164/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.

Propylene carbonate						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - sporadic (intermittent) release		PNEC	9	mg/l	
	Environment - marine		PNEC	0,09	mg/l	
	Environment - sediment, marine		PNEC	0,083	mg/l	
	Environment - soil		PNEC	0,81	mg/l	
	Environment - freshwater		PNEC	0,9	mg/l	
	Environment - sediment, freshwater		PNEC	0,83	mg/l	
	Environment - sewage treatment plant		PNEC	7400	mg/l	
Consumer	Human - oral	Long term, systemic effects	DNEL	25	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	25	mg/kg	
Consumer	Human - inhalation	Long term, local effects	DNEL	10	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	43,5	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	176	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	50	mg/kg	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	20	mg/m3	

Dibutyl tin 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	0,00463	mg/l	
	Environment - marine		PNEC	0,00406	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	

### 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

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Protective nitrile gloves (EN 374)

Minimum layer thickness in mm:

≥ 0,35

Permeation time (penetration time) in minutes:

≥ 480

The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.

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

Protective hand cream recommended.

Skin protection - Other:

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

Respiratory protection:

Normally not necessary.

If OES or MEL is exceeded.

Filter A2 P2 (EN 14387), code colour brown, white

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:	Pastelike, Liquid
Colour:	According to specification
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):	n.a.
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	~1,52 g/ml (20°C)
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	n.a.
Decomposition temperature:	Not determined
Viscosity:	67000 - 93000 mPas (25°C)
Explosive properties:	Product is not explosive.
Oxidising properties:	No

### 9.2 Other information

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

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

reacts with water

### 10.2 Chemical stability

Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

Exothermic reaction possible with:

Alcohols

Amines

Bases

Acids

Water

Development of:

Carbon dioxide

CO<sub>2</sub> formation in closed tanks causes pressure to rise.

Pressure increase will result in danger of bursting.

### 10.4 Conditions to avoid

See also section 7.

Protect from humidity.

Polymerisation due to high heat is possible.

T &gt; 260°C

### 10.5 Incompatible materials

See also section 7.

Acids

Bases

Amines

Alcohols

Water

### 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).

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Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
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.

Methylenediphenyl diisocyanate, modified						
Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/k g	Rat		
Acute toxicity, by dermal route:	LD50	>9400	mg/k g	Rabbit		
Acute toxicity, by inhalation:	LC50	0,49	mg/l/ 4h	Rat		Aerosol, Does not conform with EU classification.
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Sensitising (inhalation and skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Aspiration hazard:						No
Symptoms:						watering eyes, breathing difficulties, asthmatic symptoms, coughing
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Irritation of the respiratory tract

Propylene carbonate						
Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/k g	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/k g	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Irritant
Respiratory or skin sensitisation:				Human being		No (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:					OECD 482 (Gen. Tox. - DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro)	Negative

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Carcinogenicity:				Mouse	OECD 451 (Carcinogenicity Studies)	Negative
Reproductive toxicity:	NOAEL	5000	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	No indications of such an effect.
Reproductive toxicity:	NOAEL	1000	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Specific target organ toxicity - single exposure (STOT-SE):						No
Specific target organ toxicity - repeated exposure (STOT-RE):						No
Aspiration hazard:						No
Symptoms:						breathing difficulties, headaches, gastrointes- tinal distur- bances, dizziness, nausea
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOEL	>5000	mg/kg		OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOEC	100	mg/m <sup>3</sup>		OECD 413 (Subchronic Inhalation Toxicity - 90-Day Study)	Dust, Mist

Dibutyl tin dilaurate						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	2071	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rat		Corrosive
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Risk of serious damage to eyes.
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Sensitising
Germ cell mutagenicity:						Muta. 2
Carcinogenicity:	NOAEL	133	ppm	Rat		Analogous conclusion, No indications of such an effect.
Reproductive toxicity:	NOAEL	5	mg/kg			Classification based on toxicological analyses., Repr. 1B
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	0,3	mg/kg			Classification based on toxicological analyses.
Aspiration hazard:						Negative
Symptoms:						respiratory distress, diarrhoea, coughing, cramps, mucous membrane irritation, nausea and vomiting.

Calcium carbonate						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 420 (Acute Oral toxicity - Fixed Dose Procedure)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>3	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant

Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant, Mechanical irritation possible.
Respiratory or skin sensitisation:						No (skin contact)
Germ cell mutagenicity:					in vitro	Negative
Carcinogenicity:						Negative, administered as Calcium carbonate
Reproductive toxicity:						Negative, administered as Calcium carbonate

Silica, amorphous						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by dermal route:	LD50	> 2000	mg/kg	Rat		References
Acute toxicity, by inhalation:	LC50	>0,691	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Skin corrosion/irritation:				Rabbit		Not irritant, References
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit		Not irritant, References
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative, References

## SECTION 12: Ecological information

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

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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:							n.d.a.
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. Other adverse effects:							n.d.a.

Methylenediphenyl diisocyanate, modified							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>1000	mg/l		OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>10	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	>1640	mg/l		OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	0	%		OECD 302 C (Inherent Biodegradability - Modified MITI Test (II))	Not biodegradable
12.3. Bioaccumulative potential:	BCF		200				High

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Toxicity to bacteria:	EC50	3h	>100	mg/l		OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other information:	AOX						Contains organically bound halogens, which may contribute to the AOX value in wastewater.

Propylene carbonate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>1000	mg/l	Cyprinus caprio	92/69/EC	
12.1. Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	>900	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:			83,5-87,7	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable29d
12.3. Bioaccumulative potential:	Log Pow		-0,48				Bioaccumulation is unlikely (LogPow < 1),.. calculated value
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10	16h	25619	mg/l	Pseudomonas putida	DIN 38412 T.8	
Other information:	AOX		0	%			Does not contain any organically bound halogens which can contribute to the AOX value in wastewater.

Dibutyl tin dilaurate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC0	96h	3,1	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	saturated solution
12.1. Toxicity to daphnia:	EC50	48h	<1	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	saturated solution
12.1. Toxicity to algae:	EC50	72h	>1	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	22	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable
12.3. Bioaccumulative potential:	BCF		1,49-3,7			OECD 305 (Bioconcentration - Flow-Through Fish Test)	
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Calcium carbonate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes

12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	>14	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to bacteria:	EC50	3h	>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Toxicity to annelids:					Eisenia foetida	OECD 207 (Earthworm, Acute Toxicity Tests)	Negative
Water solubility:			0,014	g/l			

Silica, amorphous							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>10000	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.2. Persistence and degradability:							Not biodegradable

## 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.

Hardened product:

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.

15 01 10 packaging containing residues of or contaminated by hazardous substances

## 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

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 maternity protection and the protection of young people at work!

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

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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 18.08.2017 / 0009  
Replacing version dated / version: 07.03.2017 / 0008  
Valid from: 18.08.2017  
PDF print date: 22.08.2017  
TRADEPUR LTM4

(TRADEPUR LTM4)

Revised sections: 3

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
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.
STOT RE 2, H373	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.  
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.

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  
STOT RE — Specific target organ toxicity - repeated exposure  
Acute Tox. — Acute toxicity - inhalation  
Muta. — Germ cell mutagenicity  
Repr. — Reproductive toxicity  
Skin Corr. — Skin corrosion  
Aquatic Acute — Hazardous to the aquatic environment - acute  
Aquatic Chronic — Hazardous to the aquatic environment - chronic  
STOT SE — Specific target organ toxicity - single exposure  
Eye Dam. — Serious eye damage

**Any abbreviations and acronyms used in this document:**

AC Article Categories  
acc., acc. to according, according to  
ACGIH American Conference of Governmental Industrial Hygienists  
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)  
AOEL Acceptable Operator Exposure Level  
AOX Adsorbable organic halogen compounds  
approx. approximately  
Art., Art. no. Article number  
ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)  
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  
BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)  
BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)  
BMGV Biological monitoring guidance value (EH40, UK)  
BOD Biochemical oxygen demand  
BSEF Bromine Science and Environmental Forum  
bw body weight  
CAS Chemical Abstracts Service  
CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids  
CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques  
CIPAC Collaborative International Pesticides Analytical Council  
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)  
CMR carcinogenic, mutagenic, reproductive toxic  
COD Chemical oxygen demand  
CTFA Cosmetic, Toiletry, and Fragrance Association  
DMEL Derived Minimum Effect Level  
DNEL Derived No Effect Level  
DOC Dissolved organic carbon  
DT50 Dwell Time - 50% reduction of start concentration  
DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)  
dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance  
EC European Community  
ECHA European Chemicals Agency  
EEA European Economic Area  
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)  
ERC Environmental Release Categories  
ES Exposure scenario  
etc. et cetera  
EU European Union  
EWC European Waste Catalogue  
Fax. Fax number  
gen. general  
GHS Globally Harmonized System of Classification and Labelling of Chemicals  
GWP Global warming potential  
HET-CAM Hen's Egg Test - Chorionallantoic Membrane  
HGWP Halocarbon Global Warming Potential  
IARC International Agency for Research on Cancer  
IATA International Air Transport Association  
IBC Intermediate Bulk Container  
IBC (Code) International Bulk Chemical (Code)  
IC Inhibitory concentration  
IMDG-code International Maritime Code for Dangerous Goods  
incl. including, inclusive  
IUCLID International Uniform ChemicalL Information Database  
LC lethal concentration  
LC50 lethal concentration 50 percent kill  
LCLo lowest published lethal concentration  
LD Lethal Dose of a chemical  
LD50 Lethal Dose, 50% kill  
LDLo Lethal Dose Low  
LOAEL Lowest Observed Adverse Effect Level  
LOEC Lowest Observed Effect Concentration  
LOEL Lowest Observed Effect Level  
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 of Occupational Safety and Health (United States of America)  
NOAEC No Observed Adverse Effective Concentration  
NOAEL No Observed Adverse Effect Level  
NOEC No Observed Effect Concentration  
NOEL No Observed Effect Level  
ODP Ozone Depletion Potential  
OECD Organisation for Economic Co-operation and Development  
org. organic  
PAH polycyclic aromatic hydrocarbon  
PBT persistent, bioaccumulative and toxic  
PC Chemical product category  
PE Polyethylene  
PNEC Predicted No Effect Concentration  
POCP Photochemical ozone creation potential  
ppm parts per million  
PROC Process category  
PTFE Polytetrafluorethylene  
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. 9xxx-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)  
SADT Self-Accelerating Decomposition Temperature  
SAR Structure Activity Relationship  
SU Sector of use  
SVHC Substances of Very High Concern  
Tel. Telephone  
ThOD Theoretical oxygen demand  
TOC Total organic carbon  
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)  
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods  
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))  
VOC Volatile organic compounds  
vPvB very persistent and very bioaccumulative  
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).  
WHO World Health Organization  
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.  
These statements were made by:  
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