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

UVT 390 Top-Z 390 ML
Art.: 9041579

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

Relevant identified uses of the substance or mixture:
Compound mortar
Sector of use [SU]:
SU 0 - Other
SU 1 - Agriculture, forestry, fishery
SU19 - Building and construction work
SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Chemical product category [PC]:
PC 9b - Fillers, putties, plasters, modelling clay
Process category [PROC]:
PROC19 - Manual activities involving hand contact
Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet

GB
BTI Befestigungstechnik GmbH & Co. KG, Salzstr. 51, 74653 Ingelfingen, Germany
Phone:+49 7940 141 256, Fax:+49 7940 141 9256
Stefan.Haug@bti.de, 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
STOT SE	3	H335-May cause respiratory irritation.
Eye Dam.	1	H318-Causes serious eye damage.
Skin Sens.	1	H317-May cause an allergic skin reaction.

Repr.	1B	H360F-May damage fertility.
Aquatic Chronic	2	H411-Toxic to aquatic life with long lasting effects.
Skin Corr.	1C	H314-Causes severe skin burns and eye damage.

2.2 Label elements
Labeling according to Regulation (EC) 1272/2008 (CLP)

Danger

H335-May cause respiratory irritation. H317-May cause an allergic skin reaction. H360F-May damage fertility. H411-Toxic to aquatic life with long lasting effects. H314-Causes severe skin burns and eye damage.

P201-Obtain special instructions before use. P260-Do not breathe dust or mist. P273-Avoid release to the environment. P280-Wear protective gloves / protective clothing / eye protection / face protection. P301+P330+P331-IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353-IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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.

Restricted to professional users.
reaction product bisphenol A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)
Bisphenol F epoxy resin
Cement, portland, chemicals
Trimethylolpropane triglycidyl ether

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

reaction product bisphenol A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)	
Registration number (REACH)	01-2119456619-26-XXXX
Index	603-074-00-8

EINECS, ELINCS, NLP	500-033-5 (NLP)
CAS	25068-38-6
content %	25-50
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411

Cement, portland, chemicals	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	266-043-4
CAS	65997-15-1
content %	25-50
Classification according to Regulation (EC) 1272/2008 (CLP)	STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318

Bisphenol F epoxy resin	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	---
CAS	28064-14-4
content %	10-25
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411

Trimethylolpropane triglycidyl ether	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	---
CAS	30499-70-8
content %	5-10
Classification according to Regulation (EC) 1272/2008 (CLP)	Skin Corr. 1C, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 2, H411 Repr. 1B, H360F

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	
Registration number (REACH)	01-2119513212-58-XXXX
Index	---
EINECS, ELINCS, NLP	219-784-2
CAS	2530-83-8
content %	2,5-10
Classification according to Regulation (EC) 1272/2008 (CLP)	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 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
Supply person with fresh air and consult doctor according to symptoms.
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 - call doctor immediately, have Data Sheet available.
Protect uninjured eye.
Follow-up examination by an ophthalmologist
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.
Corrosive burns on skin as well as mucous membrane possible.
Risk of serious damage to eyes.
Corneal damage.
Danger of blindness
Ingestion:
Pain in the mouth and throat
stomach pain
Oesophageal perforation
Gastric perforation
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
Water jet spray/foam/CO2/dry extinguisher
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 sulphur
Oxides of nitrogen

Toxic gases

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.
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 contact with eyes or skin.

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

Pick up mechanically and dispose of according to Section 13.

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 contact with eyes or skin.
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.
Store product closed and only in original packing.
Not to be stored in gangways or stair wells.
Do not store with oxidizing agents.
Do not store with alkalis.
Do not store with acids.
Protect from direct sunlight and warming.
Protect against moisture and store closed.
Store in a dry place.

Store in a well ventilated place.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

GB	**Chemical Name**	Cement, portland, chemicals	Content %:25-50
WEL-TWA: 10 mg/m3 (total inh. dust), 4 mg/m3 (res. dust)	WEL-STEL: ---	---	
Monitoring procedures: ---			
BMGV: ---	Other information: ---		

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 (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | 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.

8.2 Exposure controls

reaction product bisphenol A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,003	mg/l	
	Environment - marine		PNEC	0,0003	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,018	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	0,5	mg/kg dw	
	Environment - sediment, marine		PNEC	0,5	mg/kg dw	
	Environment - soil		PNEC	0,05	mg/kg dw	

	Environment - oral (animal feed)		PNEC	11	mg/kg	
Consumer	Human - dermal	Short term, systemic effects	DNEL	3,571	mg/kg bw/day	
Consumer	Human - oral	Short term, systemic effects	DNEL	0,75	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,75	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,75	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,75	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	3,6	mg/kg bw/day	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	8,33	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	12,25	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	8,3	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	12,3	mg/m3	

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane						
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 - water, sporadic (intermittent) release		PNEC	1	mg/l	
	Environment - sediment		PNEC	0,79	mg/kg dry weight	
	Environment - soil		PNEC	0,13	mg/kg dry weight	
Consumer	Human - dermal	Short term, systemic effects	DNEL	12,5	mg/kg bw/d	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	43,5	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	12,5	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	12,5	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	43,5	mg/m3	

Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	147	mg/m3	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	21	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	147	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	21	mg/kg bw/day	

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. BS EN 14042.
BS 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).
If applicable
Face protection (EN 166)

Skin protection - Hand protection:
Chemical resistant protective gloves (EN 374).
Recommended
Protective gloves in butyl rubber (EN 374).
Safety gloves made of fluorocarbon rubber (EN 374).
Protective nitrile gloves (EN 374)
Minimum layer thickness in mm:
>= 0,5
Permeation time (penetration time) in minutes:
> 120
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:

Normally not necessary.
If air supply is not sufficient, wear protective breathing apparatus.

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:	Paste, Solid
Colour:	White
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:	>100 °C
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:	1,5-1,6 g/cm3 (20°C)
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Not determined
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	No
Decomposition temperature:	Not determined
Viscosity:	90-130 Pas (20°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
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
None known
10.5 Incompatible materials
Avoid contact with strong oxidizing agents.
Avoid contact with strong acids.
10.6 Hazardous decomposition products
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).

UVT 390 Top-Z 390 ML Art.: 9041579						
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:						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.

reaction product bisphenol A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising (skin contact)
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Sensitising (skin contact)
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Positive
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative
Reproductive toxicity:	NOEL	540	mg/kg		OECD 416 (Two-generation Reproduction Toxicity Study)	
Reproductive toxicity:				Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	50	mg/kg bw/d			
Aspiration hazard:						No
Symptoms:						diarrhoea, weight loss

Cement, portland, chemicals						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Skin corrosion/irritation:						Irritant
Serious eye damage/irritation:						Intensively irritant
Serious eye damage/irritation:						Risk of serious damage to eyes.
Respiratory or skin sensitisation:						Low-chromate
Respiratory or skin sensitisation:						Low-chromate, Not sensitizising
Specific target organ toxicity - single exposure (STOT-SE):						Irritation of the respiratory tract
Symptoms:						mucous membrane irritation
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Irritation of the respiratory tract

Trimethylolpropane triglycidyl ether						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>2000	mg/kg			
Respiratory or skin sensitisation:				Guinea pig		Yes (skin contact)

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	8025	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	5,3	mg/l	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant

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)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:	NOAEL	1500	mg/kg/d			
Aspiration hazard:						No
Symptoms:						acidosis, drop in blood pressure, vomiting, headaches, cramps, dizziness, visual disturbances, nausea
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	500	mg/kg	Rat	OECD 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	0,225	mg/kg	Rat	OECD 412 (Subacute Inhalation Toxicity - 28-Day Study)	

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.

reaction product bisphenol A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to fish:	LC50	96h	1,2	mg/l	Oncorhynchus mykiss	U.S. EPA ECOTOX Database	
12.1. Toxicity to daphnia:	EC50	48h	1,1	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,3	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	9,4	mg/l	Selenastrum capricornutum	U.S. EPA ECOTOX Database	
12.1. Toxicity to fish:	LC50	96h	2	mg/l	Leuciscus idus		
12.2. Persistence and degradability:		28d	5	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		3,8				
12.1. Toxicity to algae:	EC50	96h	220	mg/l	Scenedesmus subspicatus		

Other information:							Contains organically bound halogens, which may contribute to the AOX value in wastewater.

Trimethylolpropane triglycidyl ether							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	75	g/l			

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	237	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>=100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	EC50	48h	324	mg/l	Daphnia magna	U.S. EPA ECOTOX Database	
12.1. Toxicity to algae:	EC50	7d	119	mg/l	Anabaena flos-aquae	U.S. EPA ECOTOX Database	
12.1. Toxicity to algae:	NOEC/NOEL	7d	<50	mg/l	Anabaena flos-aquae	U.S. EPA ECOTOX Database	
12.2. Persistence and degradability:		28d	37	%	activated sludge	Regulation (EC) 440/2008 C.4-A (DETERMINATION OF 'READY' BIODEGRADABILITY - DOC DIE-AWAY TEST)	Not readily biodegradable

12.2. Persistence and degradability:	DOC	28d	37	%		Regulation (EC) 440/2008 C.4-A (DETERMINATION OF 'READY' BIODEGRADABILITY - DOC DIE-AWAY TEST)	Not readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		0,5				Not to be expected
12.3. Bioaccumulative potential:							Not to be expected
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	NOEC/NOEL	3h	>100	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

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
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
E.g. dispose at suitable refuse site.
E.g. suitable incineration plant.
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:	1759

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:
UN 1759 CORROSIVE SOLID, N.O.S. (TRIMETHYLOLPROPANE TRIGLYCIDYL ETHER)

14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Classification code:	C10
LQ:	5 kg
14.5. Environmental hazards:	environmentally hazardous
Tunnel restriction code:	E

Transport by sea (IMDG-code)

14.2. UN proper shipping name:
CORROSIVE SOLID, N.O.S. (TRIMETHYLOLPROPANE TRIGLYCIDYL ETHER)

14.3. Transport hazard class(es):	8
14.4. Packing group:	III
EmS:	F-A, S-B
Marine Pollutant:	Yes
14.5. Environmental hazards:	environmentally hazardous

Transport by air (IATA)

14.2. UN proper shipping name:
Corrosive solid, n.o.s. (TRIMETHYLOLPROPANE TRIGLYCIDYL ETHER)

14.3. Transport hazard class(es):	8
14.4. Packing group:	III
14.5. Environmental hazards:	Not applicable

14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.
All persons involved in transporting must observe safety regulations.
Precautions must be taken to prevent damage.

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

Freighted as packaged goods rather than in bulk, therefore not applicable.
Minimum amount regulations have not been taken into account.
Danger code and packing code on request.
Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:
Regulation (EC) No 1907/2006, Annex XVII
Cement, portland, chemicals

Trimethylolpropane triglycidyl ether
Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements
E2		200	500

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): 6 g/l

Observe incident regulations.

Observe regulations on prohibition of chemicals.

15.2 Chemical safety assessment
A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 3, 8, 11, 12
Employee training in handling dangerous goods is required.
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
STOT SE 3, H335	Classification according to calculation procedure.
Eye Dam. 1, H318	Classification according to calculation procedure.
Skin Sens. 1, H317	Classification according to calculation procedure.
Repr. 1B, H360F	Classification according to calculation procedure.
Aquatic Chronic 2, H411	Classification according to calculation procedure.
Skin Corr. 1C, H314	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.
H360F May damage fertility.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.

STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation
Eye Dam. — Serious eye damage
Skin Sens. — Skin sensitization
Repr. — Reproductive toxicity
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Skin Corr. — Skin corrosion
Eye Irrit. — Eye irritation
Skin Irrit. — Skin irritation

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 ChemicaL 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. 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)
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.