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

Vario-Sol BDM 310 ml
Art.: 9095770

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

Relevant identified uses of the substance or mixture:
Insulating material
Fire protection
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
Skin Sens.	1	H317-May cause an allergic skin reaction.
Repr.	2	H361d-Suspected of damaging the unborn child.
Aquatic Chronic	2	H411-Toxic to aquatic life with long lasting effects.

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

Warning

H317-May cause an allergic skin reaction. H361d-Suspected of damaging the unborn child. H411-Toxic to aquatic life with long lasting effects.

P201-Obtain special instructions before use. P261-Avoid breathing vapours. P273-Avoid release to the environment. P280-Wear protective gloves / protective clothing / eye protection / face protection. P308+P313-IF exposed or concerned: Get medical advice / attention.

1,2-benzisothiazol-3(2H)-one
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
2-Octyl-2H-isothiazol-3-one
Hexaboron dizinc undecaoxide

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

Hexaboron dizinc undecaoxide	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	235-804-2
CAS	12767-90-7 / 138265-88-0
content %	10-<25
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Repr. 2, H361d Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411

Ammonia	**Substance for which an EU exposure limit value applies.**
Registration number (REACH)	---
Index	007-001-01-2
EINECS, ELINCS, NLP, REACH-IT List-No.	215-647-6
CAS	1336-21-6
content %	0,01-<0,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411
Specific Concentration Limits and ATE	STOT SE 3, H335: >=5 %

1,2-benzisothiazol-3(2H)-one	
Registration number (REACH)	---
Index	613-088-00-6
EINECS, ELINCS, NLP, REACH-IT List-No.	220-120-9
CAS	2634-33-5
content %	0,005-<0,05
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=10)
Specific Concentration Limits and ATE	Skin Sens. 1, H317: >=0,05 %

2-Octyl-2H-isothiazol-3-one	
Registration number (REACH)	---
Index	613-112-00-5
EINECS, ELINCS, NLP, REACH-IT List-No.	247-761-7
CAS	26530-20-1
content %	0,0015-<0,05
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH071 Acute Tox. 2, H330 Acute Tox. 3, H301 Acute Tox. 3, H311 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
Specific Concentration Limits and ATE	Skin Sens. 1A, H317: >=0,0015 % ATE (oral): 125 mg/kg ATE (dermal): 311 mg/kg ATE (as inhalation, Mist): 0,27 mg/l/4h

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	
Registration number (REACH)	---
Index	613-167-00-5
EINECS, ELINCS, NLP, REACH-IT List-No.	---

CAS	55965-84-9
content %	0,0001-<0,0015
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH071 Acute Tox. 2, H310 Acute Tox. 2, H330 Acute Tox. 3, H301 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
Specific Concentration Limits and ATE	Skin Corr. 1C, H314: >=0,6 % Skin Irrit. 2, H315: >=0,06 % Eye Dam. 1, H318: >=0,6 % Eye Irrit. 2, H319: >=0,06 % Skin Sens. 1A, H317: >=0,0015 %

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
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.

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.
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.
eyes, reddened
reddening of the skin
Allergic reaction

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 nitrogen
Metal oxides
Toxic gases
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.
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
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.
Ensure sufficient supply of air.
Avoid contact with eyes or skin.
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 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
Allow product to harden.
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.
Pregnant women should avoid contact with this product.
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.
Protect from direct sunlight.
Store at room temperature.
Store in a dry 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**	Ammonia	Content %:0,01-<0,5
WEL-TWA: NH3 25 ppm (18 mg/m3) (WEL), 20 ppm (14 mg/m3) (EU)	WEL-STEL: NH3 35 ppm (25 mg/m3) (WEL), 50 ppm (36 mg/m3) (EU)	---	
Monitoring procedures:	- Draeger - Ammonia 0,25/a (81 01 711) - Draeger - Ammonia 0,5%/a (CH 31 901) - Draeger - Ammonia 2/a (67 33 231) - Draeger - Ammonia 5/a (CH 20 501) - Draeger - Ammonia 5/b (81 01 941) - Compur - KITA-105 SA (548 642) - Compur - KITA-105 SB (548 659) - Compur - KITA-105 SC (548 667) - Compur - KITA-105 SD (548 675) - Compur - KITA-105 SH (548 683) - Compur - KITA-105 SM (548 691) - NIOSH 6015 (Ammonia) - 1990 - NIOSH 6016 (AMMONIA by IC) - 2016 - OSHA ID-164 (Ammonia in Workplace Atmospheres) - 1988 - OSHA ID-188 (Ammonia in workplace atmospheres – solid sorbent) - 2002		
BMGV: ---		Other information: ---	

GB	**Chemical Name**	Talc	Content %:
WEL-TWA: 1 mg/m3 (res. dust)	WEL-STEL: ---	---	
Monitoring procedures:	---		
BMGV: ---		Other information: ---	

Chemical Name Glass, oxide, chemicals		Content %:
WEL-TWA: 2 fibres/ml, 5 mg/m3 (l:d >= 3:1, < 6µm) (MMMF)	WEL-STEL: ---	---
Monitoring procedures: ---		
BMGV: ---	Other information: ---	

GB **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: ---	

GB **Chemical Name** Vinyl acetate		Content %:
WEL-TWA: 5 ppm (17,6 mg/m3) (WEL-TWA, EU)	WEL-STEL: 10 ppm (35,2 mg/m3) (WEL-STEL, EU)	---
Monitoring procedures: - Compur - KITA-237 S (549 863) - OSHA 51 (Vinyl Acetate) - 1985		
BMGV: ---	Other information: ---	

GB **Chemical Name** general dust limit		Content %:
WEL-TWA: 10 mg/m3 (inhal. dust), 4 mg/m3 (respir. dust)	WEL-STEL: ---	---
Monitoring procedures: ---		
BMGV: ---	Other information: ---	

Ammonia

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,0011	mg/l	
	Environment - marine		PNEC	0,0011	mg/l	
	Environment - periodic release		PNEC	0,0068	mg/l	
Consumer	Human - inhalation	Long term, local effects	DNEL	2,8	mg/m3	
Consumer	Human - dermal	Short term, local effects	DNEL	68	mg/kg body weight/day	
Consumer	Human - dermal	Short term, systemic effects	DNEL	68	mg/kg body weight/day	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	23,8	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	23,8	mg/m3	

Consumer	Human - oral	Short term, systemic effects	DNEL	6,8	mg/kg body weight/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	6,8	mg/kg body weight/day	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	6,8	mg/kg body weight/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	6,8	mg/kg body weight/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	47,6	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	36	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	47,6	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	14	mg/m3	

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,00339	mg/l	
	Environment - marine		PNEC	0,00339	mg/l	
	Environment - sediment, freshwater		PNEC	0,027	mg/kg dw	
	Environment - sediment, marine		PNEC	0,027	mg/kg dw	
	Environment - soil		PNEC	0,01	mg/kg dw	
	Environment - sewage treatment plant		PNEC	0,23	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,00339	mg/l	
Consumer	Human - inhalation	Long term, local effects	DNEL	0,02	mg/m3	
Consumer	Human - inhalation	Short term, local effects	DNEL	0,04	mg/m3	

Consumer	Human - oral	Long term, systemic effects	DNEL	0,09	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,02	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	0,04	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 PVC gloves (EN ISO 374).

Minimum layer thickness in mm:
0,5
Permeation time (penetration time) in minutes:
> 60
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.
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.

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:	Grey
Odour:	Slightly
Melting point/freezing point:	There is no information available on this parameter.
Boiling point or initial boiling point and boiling range:	>100 °C
Flammability:	Flammable
Lower explosion limit:	Does not apply to solids.
Upper explosion limit:	Does not apply to solids.
Flash point:	>93 °C
Auto-ignition temperature:	Does not apply to solids.
Decomposition temperature:	There is no information available on this parameter.
pH:	7-8
Kinematic viscosity:	Does not apply to solids.

Solubility:	There is no information available on this parameter.
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:	~1,42 g/cm3 (relative density)
Relative vapour density:	Does not apply to solids.

9.2 Other information

Explosives:	Product is not explosive.
Oxidizing solids:	No
Solvents content:	<2 %

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.
Heating, open flame, ignition sources
10.5 Incompatible materials
See also section 7.
Oxidizing agents
Reducing agent
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).

Vario-Sol BDM 310 ml Art.: 9095770						
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.

Ammonia						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	350	mg/kg	Rat		
Acute toxicity, by oral route:	LDLo	550	mg/kg	Cat		
Acute toxicity, by oral route:	LDLo	43	mg/kg	Human being		
Acute toxicity, by inhalation:	LCLo	5000	ppm	Human being		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Corrosive
Serious eye damage/irritation:				Rabbit		Risk of serious damage to eyes.
Respiratory or skin sensitisation:				Guinea pig		Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative
Reproductive toxicity:	NOAEL	408	mg/kg	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test)	

Symptoms:						asthmatic symptoms, respiratory distress, unconsciousness, burning of the membranes of the nose and throat, vomiting, cornea opacity, coughing, cramps, circulatory collapse, shock, nausea

1,2-benzisothiazol-3(2H)-one						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	375	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	4115	mg/kg	Rat		
Skin corrosion/irritation:						Skin Irrit. 2
Serious eye damage/irritation:						Eye Dam. 1
Respiratory or skin sensitisation:				Guinea pig		Yes (skin contact)
Germ cell mutagenicity:						Negative
Symptoms:						vomiting, headaches, gastrointestinal disturbances, nausea

2-Octyl-2H-isothiazol-3-one						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	ATE	125	mg/kg			
Acute toxicity, by dermal route:	ATE	311	mg/kg			
Acute toxicity, by inhalation:	ATE	0,27	mg/l/4h			Dust, Mist
Symptoms:						ataxia, diarrhoea

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	53	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	660	mg/kg	Rabbit		
Skin corrosion/irritation:				Rabbit		Corrosive
Serious eye damage/irritation:				Rabbit		Corrosive
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Yes (skin contact)
Aspiration hazard:						No
Symptoms:						diarrhoea, mucous membrane irritation, watering eyes, eyes, reddened

Talc						
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	>2000	mg/kg	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Skin corrosion/irritation:						Not irritant
Respiratory or skin sensitisation:						Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:				Rat		Negative
Symptoms:						mucous membrane irritation

Glass, oxide, chemicals						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Symptoms:						mucous membrane irritation

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 - Fixe Dose Procedure)	
Acute toxicity, by oral route:	LD50	> 5000	mg/kg	Rat		
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 Ca-lactate
Reproductive toxicity:						Negative, administered as Ca-carbonate

Vinyl acetate						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	2920	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	2335	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	15,8	mg/l/4h	Rat		
Symptoms:						respiratory distress, drying of the skin., blisters, circulatory collapse

11.2. Information on other hazards

Vario-Sol BDM 310 ml Art.: 9095770						
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).

Vario-Sol BDM 310 ml Art.: 9095770							
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. Endocrine disrupting properties:							Does not apply to mixtures.
12.7. Other adverse effects:							No information available on other adverse effects on the environment.

Ammonia							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,42	mg/l	Daphnia magna		
12.1. Toxicity to fish:	LC50	96h	0,16-1,1	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	24-25,4	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	>1000	mg/l	Skeletonema costatum	ISO 10253	
12.1. Toxicity to fish:	NOEC/NOEL	30d	<0,048	mg/l	Ictalurus punctatus	OECD 215 (Fish, Juvenile Growth Test)	
12.1. Toxicity to fish:	LC50	96h	8,2	mg/l	Pimephales promelas		
12.1. Toxicity to fish:	LC50	96h	0,53	mg/l	Oncorhynchus mykiss		Anhydrous substance
12.1. Toxicity to daphnia:	EC50	48h	0,66	mg/l	Daphnia pulex		
12.1. Toxicity to daphnia:	EC50	48h	1,16	mg/l	Daphnia pulicaria		Anhydrous substance
12.1. Toxicity to algae:	EC50	72h	>1000		Skeletonema costatum	ISO 10253	
12.2. Persistence and degradability:							Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		-1,14			Regulation (EC) 440/2008 A.8 (PARTITION COEFFICIENT)	Not to be expected
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	5min	1,16	mg/l	Photobacterium phosphoreum		Anhydrous substance
Water solubility:							Soluble

1,2-benzisothiazol-3(2H)-one							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	0,8-2,18	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	

12.1. Toxicity to daphnia:	EC50	48h	1,1-4,4	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	96h	0,055	mg/l	Pseudokirchneriella subcapitata		
12.1. Toxicity to algae:	ErC50	72h	0,11	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:						OECD 303 (Simulation Test - Aerobic Sewage Treatment)	Hardly biodegradable
12.3. Bioaccumulative potential:	Log Pow		1,11				A notable biological accumulation potential is not to be expected (LogPow 1-3).
Toxicity to bacteria:	EC50	16h	0,4	mg/l	Pseudomonas putida		

2-Octyl-2H-isothiazol-3-one							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	0,047	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	NOEC/NOEL	35d	0,0085	mg/l	Pimephales promelas		
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,003	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	EC50	48h	0,32	mg/l	Daphnia magna		
12.1. Toxicity to algae:	ErC10	48h	0,000224	mg/l	Navicula pelliculosa	OECD 201 (Alga, Growth Inhibition Test)	

12.1. Toxicity to algae:	EC50	72h	0,001 29	mg/l	Navicula pelliculosa	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:			25	%			Not readily biodegradable
Toxicity to bacteria:	EC50		30,2	mg/l	activated sludge		
Toxicity to bacteria:	EC20	3h	7,3	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	0,28	mg/l	Lepomis macrochirus		
12.1. Toxicity to fish:	LC50	96h	0,19-0,22	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	28d	0,098	mg/l	Oncorhynchus mykiss	OECD 210 (Fish, Early-Life Stage Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,004	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to daphnia:	EC50	48h	0,16	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	0,048	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,001 2	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	

12.2. Persistence and degradability:			>60	%	activated sludge	OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Does not conform with EU classification.
12.3. Bioaccumulative potential:	BCF		3,6				calculated value
12.3. Bioaccumulative potential:	Log Pow		0,401-0,486				Does not conform with EU classification.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	3h	7,92	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

Talc							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Water solubility:			<0,1	%			
12.2. Persistence and degradability:							Not relevant for inorganic substances.
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 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
12.3. Bioaccumulative potential:							Not relevant for inorganic substances.
12.4. Mobility in soil:							Not relevant for inorganic substances.
12.5. Results of PBT and vPvB assessment							Not relevant for inorganic substances.
12.1. Toxicity to fish:	LC50	96h	>10000	mg/l	Oncorhynchus mykiss		
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	>1000	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	>200	mg/l	Desmodesmus subspicatus		
12.2. Persistence and degradability:							Inorganic products cannot be eliminated from water through biological purification methods.

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 or ID number:	3077

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-OCTYL-2H-ISOTHIAZOL-3-ONE)

14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Classification code:	M7
LQ:	5 kg
14.5. Environmental hazards:	environmentally hazardous
Tunnel restriction code:	-

Transport by sea (IMDG-code)

14.2. UN proper shipping name:
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-OCTYL-2H-ISOTHIAZOL-3-ONE)

14.3. Transport hazard class(es):	9
14.4. Packing group:	III
EmS:	F-A, S-F
Marine Pollutant:	Yes
14.5. Environmental hazards:	environmentally hazardous

Transport by air (IATA)

14.2. UN proper shipping name:
Environmentally hazardous substance, solid, n.o.s. (2-OCTYL-2H-ISOTHIAZOL-3-ONE)

14.3. Transport hazard class(es):	9
14.4. Packing group:	III
14.5. Environmental hazards:	environmentally hazardous

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. Maritime transport in bulk according to IMO instruments

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:
Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!
Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!
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): ~ 0,9 %

Treated goods as per Regulation (EU) No. 528/2012 must display specific information on the label.
Please note Article 58 paragraph (3) subparagraph 2 of Regulation (EU) No. 528/2012.
Approval of the biocidal active substance may mean that special conditions are required for marketing the treated goods.
These are indicated in the approval of the active substance.

Observe incident regulations.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 1-16
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
Skin Sens. 1, H317	Classification according to calculation procedure.
Repr. 2, H361d	Classification according to calculation procedure.
Aquatic Chronic 2, H411	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).
H330 Fatal if inhaled.
H310 Fatal in contact with skin.
H314 Causes severe skin burns and eye damage.
H361d Suspected of damaging the unborn child.
H317 May cause an allergic skin reaction.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
EUH071 Corrosive to the respiratory tract.

Skin Sens. — Skin sensitization
Repr. — Reproductive toxicity
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Aquatic Acute — Hazardous to the aquatic environment - acute
Skin Corr. — Skin corrosion
Eye Dam. — Serious eye damage
Acute Tox. — Acute toxicity - oral
Skin Irrit. — Skin irritation
Acute Tox. — Acute toxicity - inhalation
Acute Tox. — Acute toxicity - dermal

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.