



## Voluntary safety information based on the Safety Data Sheet in accordance with Annex II of Regulation (EC) No 1907/2006

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SDS No. : 627066  
V002.0

BERGQUIST SIL PAD TSP K1100 known as Sil-Pad K-6

Revision: 17.09.2020  
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Replaces version from: 11.12.2018

### SECTION 1: Identification of the article and of the company/undertaking

#### 1.1. Product identifier

BERGQUIST SIL PAD TSP K1100 known as Sil-Pad K-6

#### 1.2. Relevant identified uses of the article and uses advised against

Intended use:

Thermal Interface Material

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

Henkel AG & Co. KGaA

Henkelstr. 67

40589 Düsseldorf

Germany

Phone: +49 211 797 0

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ua-productsafety.uk@henkel.com

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

### SECTION 2: Hazards identification

#### 2.1. Classification of the article

##### Classification (CLP):

Substances and preparations marketed in a specific form or within specific containers need not to be classified according to the REACH Regulation Article 3 (3).

#### 2.2. Label elements

##### Label elements (CLP):

Substances and preparations marketed in a specific form or within specific containers need not to be classified according to the REACH Regulation Article 3 (3).

#### 2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### General chemical description:

Manufactured item - article

##### Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
3-aminopropyltriethoxysilane 919-30-2	213-048-4 01-2119480479-24	0,1- < 1 %	Skin Sens. 1 H317 Skin Corr. 1B H314 Acute Tox. 4; Oral H302
cobalt chromite green spinel 68187-49-5	269-101-7	1- < 5 %	
diboron trioxide 1303-86-2	215-125-8 01-2119486655-24	0,1- < 0,3 %	Repr. 1B H360FD ===== EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC)
Quartz (SiO <sub>2</sub> ), <1% respirable 14808-60-7	238-878-4	1- < 5 %	
Titanium dioxide 13463-67-7	236-675-5 01-2119489379-17	1- < 5 %	

For full text of the H - statements and other abbreviations see section 16 "Other information".  
Substances without classification may have community workplace exposure limits available.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

##### Skin contact:

Rinse with running water and soap.  
Obtain medical attention if irritation persists.

##### Eye contact:

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

##### Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

#### 4.2. Most important symptoms and effects, both acute and delayed

No data available.

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

See section: Description of first aid measures

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media:

water, carbon dioxide, foam, powder

**Extinguishing media which must not be used for safety reasons:**

High pressure waterjet

**5.2. Special hazards arising from the article**

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) can be released.

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

**Additional information:**

In case of fire, keep containers cool with water spray.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

**6.2. Environmental precautions**

Do not empty into drains / surface water / ground water.

**6.3. Methods and material for containment and cleaning up**

Scrape up as much material as possible.

Sweep up spilled material. Avoid creating dust.

Keep in suitable and closed containers for disposal.

**6.4. Reference to other sections**

See advice in section 8

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Avoid skin and eye contact.

See advice in section 8

Hygiene measures:

Good industrial hygiene practices should be observed.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

**7.2. Conditions for safe storage, including any incompatibilities**

Ensure good ventilation/extraction.

Keep container tightly sealed.

Refer to Technical Data Sheet

**7.3. Specific end use(s)**

Thermal Interface Material

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational Exposure Limits

Valid for  
Great Britain

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Aluminium oxide 1344-28-1 [ALUMINIUM OXIDES, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Aluminium oxide 1344-28-1 [ALUMINIUM OXIDES, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL
Cobalt chromite green spinel 68187-49-5 [COBALT AND COBALT COMPOUNDS (AS CO)]		0,1	Time Weighted Average (TWA):		EH40 WEL
Cobalt chromite green spinel 68187-49-5 [CHROMIUM (III) COMPOUNDS (AS CR)]		0,5	Time Weighted Average (TWA):		EH40 WEL
Cobalt chromite green spinel 68187-49-5 [CHROMIUM METAL, INORGANIC CHROMIUM(II) COMPOUNDS AND INORGANIC CHROMIUM(III) COMPOUNDS (INSOLUBLE)]		2	Time Weighted Average (TWA):	Indicative	ECLTV
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Quartz (SiO <sub>2</sub> ) 14808-60-7 [SILICA, RESPIRABLE CRYSTALLINE]		0,1	Time Weighted Average (TWA):		EH40 WEL
Quartz (SiO <sub>2</sub> ) 14808-60-7 [RESPIRABLE CRYSTALLINE SILICA DUST]		0,1	Time Weighted Average (TWA):		EU OELIII
Diboron trioxide 1303-86-2 [DIBORON TRIOXIDE]		10	Time Weighted Average (TWA):		EH40 WEL
Diboron trioxide 1303-86-2 [DIBORON TRIOXIDE]		20	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

#### Occupational Exposure Limits

Valid for  
Ireland

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Aluminium oxide 1344-28-1 [ALUMINIUM OXIDES]		4	Time Weighted Average (TWA):		IR_OEL
Aluminium oxide		10	Time Weighted Average		IR_OEL

1344-28-1 [ALUMINIUM OXIDES]			(TWA):		
Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS]		6	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS]		2,4	Time Weighted Average (TWA):		IR_OEL
Cobalt chromite green spinel 68187-49-5 [CHROMIUM METAL, INORGANIC CHROMIUM(II) COMPOUNDS AND INORGANIC CHROMIUM(III) COMPOUNDS (INSOLUBLE)]		2	Time Weighted Average (TWA):	Indicative	ECLTV
Cobalt chromite green spinel 68187-49-5 [CHROMIUM (III) COMPOUNDS]		2	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE]		10	Time Weighted Average (TWA):		IR_OEL
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE]		4	Time Weighted Average (TWA):		IR_OEL
Quartz (SiO <sub>2</sub> ) 14808-60-7 [RESPIRABLE CRYSTALLINE SILICA DUST]		0,1	Time Weighted Average (TWA):		EU OELIII
Quartz (SiO <sub>2</sub> ) 14808-60-7 [SILICA, CRYSTALLINE (CRISTOBALITE, QUARTZ, TRIDYMITE, TRIPOLI)]		0,1	Time Weighted Average (TWA):	Binding OELV	IR_OEL
Diboron trioxide 1303-86-2 [BORON OXIDE]		10	Time Weighted Average (TWA):		IR_OEL

**Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
3-Aminopropyltriethoxysilane 919-30-2	aqua (freshwater)		0,33 mg/l				
3-Aminopropyltriethoxysilane 919-30-2	aqua (marine water)		0,033 mg/l				
3-Aminopropyltriethoxysilane 919-30-2	aqua (intermittent releases)		3,3 mg/l				
3-Aminopropyltriethoxysilane 919-30-2	Soil				0,05 mg/kg		
3-Aminopropyltriethoxysilane 919-30-2	sewage treatment plant (STP)		13 mg/l				
3-Aminopropyltriethoxysilane 919-30-2	sediment (freshwater)				1,2 mg/kg		
3-Aminopropyltriethoxysilane 919-30-2	sediment (marine water)				0,12 mg/kg		
diboron trioxide 1303-86-2	aqua (freshwater)		2,9 mg/l				
diboron trioxide 1303-86-2	aqua (marine water)		2,9 mg/l				
diboron trioxide 1303-86-2	sewage treatment plant (STP)		10 mg/l				
diboron trioxide 1303-86-2	Soil				5,7 mg/kg		
Titanium dioxide 13463-67-7	aqua (freshwater)						no hazard identified
Titanium dioxide 13463-67-7	aqua (marine water)						no hazard identified
Titanium dioxide 13463-67-7	sewage treatment plant (STP)						no hazard identified
Titanium dioxide 13463-67-7	sediment (freshwater)						no hazard identified
Titanium dioxide 13463-67-7	sediment (marine water)						no hazard identified
Titanium dioxide 13463-67-7	Soil						no hazard identified
Titanium dioxide 13463-67-7	Aquatic (intermit. releases)						no hazard identified
Titanium dioxide 13463-67-7	Predator						no hazard identified

**Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
3-Aminopropyltriethoxysilane 919-30-2	Workers	dermal	Acute/short term exposure - systemic effects		8,3 mg/kg	
3-Aminopropyltriethoxysilane 919-30-2	Workers	Inhalation	Acute/short term exposure - systemic effects		59 mg/m <sup>3</sup>	
3-Aminopropyltriethoxysilane 919-30-2	Workers	dermal	Long term exposure - systemic effects		8,3 mg/kg	
3-Aminopropyltriethoxysilane 919-30-2	Workers	Inhalation	Long term exposure - systemic effects		59 mg/m <sup>3</sup>	
3-Aminopropyltriethoxysilane 919-30-2	General population	oral	Acute/short term exposure - systemic effects		5 mg/kg	
3-Aminopropyltriethoxysilane 919-30-2	General population	dermal	Acute/short term exposure - systemic effects		5 mg/kg	
3-Aminopropyltriethoxysilane 919-30-2	General population	Inhalation	Acute/short term exposure - systemic effects		17,4 mg/m <sup>3</sup>	
3-Aminopropyltriethoxysilane 919-30-2	General population	oral	Long term exposure - systemic effects		5 mg/kg	
3-Aminopropyltriethoxysilane 919-30-2	General population	dermal	Long term exposure - systemic effects		5 mg/kg	
3-Aminopropyltriethoxysilane 919-30-2	General population	Inhalation	Long term exposure - systemic effects		17 mg/m <sup>3</sup>	
diboron trioxide 1303-86-2	Workers	inhalation	Long term exposure - systemic effects		4,66 mg/m <sup>3</sup>	
diboron trioxide 1303-86-2	Workers	dermal	Long term exposure - systemic effects		220,6 mg/kg	

**Biological Exposure Indices:**

None

**8.2. Exposure controls:**

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A (EN 14387)

**Hand protection:**

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR;  $\geq$  0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR;  $\geq$  0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

**Eye protection:**

Wear protective glasses.

Protective eye equipment should conform to EN166.

**Skin protection:**

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

**Advices to personal protection equipment:**

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance	solid blue, green
Odor	None
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	No data available / Not applicable
Flash point	Product is a solid.
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Relative vapour density:	No data available / Not applicable
Density	No data available / Not applicable
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative)	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Oxidising properties	No data available / Not applicable

**9.2. Other information**

No data available / Not applicable



## SECTION 10: Stability and reactivity

**10.1. Reactivity**

None.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

See section reactivity

**10.4. Conditions to avoid**

Stable under normal conditions of storage and use.

**10.5. Incompatible materials**

See section reactivity.

**10.6. Hazardous decomposition products**

carbon oxides.

## SECTION 11: Toxicological information

**11.1. Information on toxicological effects****Acute oral toxicity:**

Hazardous substances CAS-No.	Value type	Value	Species	Method
3-aminopropyltriethoxysilane 919-30-2	LD50	1.457 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
diboron trioxide 1303-86-2	LD50	> 2.600 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Quartz (SiO <sub>2</sub> ), <1% respirable 14808-60-7	LD50	> 5.050 mg/kg	rat	not specified
Titanium dioxide 13463-67-7	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)

**Acute dermal toxicity:**

Hazardous substances CAS-No.	Value type	Value	Species	Method
3-aminopropyltriethoxysilane 919-30-2	LD50	4.076 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
diboron trioxide 1303-86-2	LD50	> 2.000 mg/kg	rabbit	not specified
Quartz (SiO <sub>2</sub> ), <1% respirable 14808-60-7	LD50	> 2.000 mg/kg	not specified	not specified
Titanium dioxide 13463-67-7	LD50	>= 10.000 mg/kg	hamster	not specified

**Acute inhalative toxicity:**

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
3-aminopropyltriethoxysilane 919-30-2	LC50	> 7,35 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Titanium dioxide 13463-67-7	LC50	> 6,82 mg/l	dust	4 h	rat	not specified

**Skin corrosion/irritation:**

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
3-aminopropyltriethoxysilane 919-30-2	corrosive	1 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
diboron trioxide 1303-86-2	not irritating	24 h	rabbit	not specified
Titanium dioxide 13463-67-7	not irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

**Serious eye damage/irritation:**

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
3-aminopropyltriethoxysilane 919-30-2	highly irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
diboron trioxide 1303-86-2	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Titanium dioxide 13463-67-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

**Respiratory or skin sensitization:**

Hazardous substances CAS-No.	Result	Test type	Species	Method
3-aminopropyltriethoxysilane 919-30-2	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
diboron trioxide 1303-86-2	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Titanium dioxide 13463-67-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

**Germ cell mutagenicity:**

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
3-aminopropyltriethoxysilane 919-30-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
3-aminopropyltriethoxysilane 919-30-2	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
3-aminopropyltriethoxysilane 919-30-2	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
diboron trioxide 1303-86-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
diboron trioxide 1303-86-2	negative	mammalian cell gene mutation assay	with and without		not specified
diboron trioxide 1303-86-2	negative	sister chromatid exchange assay in mammalian cells	with and without		not specified
Titanium dioxide 13463-67-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Titanium dioxide 13463-67-7	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Titanium dioxide 13463-67-7	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
3-aminopropyltriethoxysilane 919-30-2	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
diboron trioxide 1303-86-2	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Titanium dioxide 13463-67-7	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

**Carcinogenicity**

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
diboron trioxide 1303-86-2	not carcinogenic	oral: feed	103 w daily	mouse	male/female	OECD Guideline 451 (Carcinogenicity Studies)
Titanium dioxide 13463-67-7	not carcinogenic	inhalation	24 m 6 h/d; 5 d/w	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

**Reproductive toxicity:**

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
diboron trioxide 1303-86-2	NOAEL P 336 mg/kg NOAEL F1 100 mg/kg NOAEL F2 100 mg/kg	three-generation study	oral: feed	rat	not specified
Titanium dioxide 13463-67-7	NOAEL P > 1.000 mg/kg NOAEL F1 > 1.000 mg/kg		oral: gavage	rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

**STOT-single exposure:**

No data available.

**STOT-repeated exposure::**

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
3-aminopropyltriethoxysilane 919-30-2	NOAEL 200 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
diboron trioxide 1303-86-2	NOAEL 100 mg/kg	oral: feed	2 y daily	rat	not specified
Titanium dioxide 13463-67-7	NOAEL 1.000 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

**Aspiration hazard:**

No data available.

**SECTION 12: Ecological information****12.1. Toxicity****Toxicity (Fish):**

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
3-aminopropyltriethoxysilane 919-30-2	LC50	> 934 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
diboron trioxide 1303-86-2	LC50	513,3 mg/l	96 h	Pimephales promelas	other guideline:
diboron trioxide 1303-86-2	NOEC	41,2 mg/l	34 d	Danio rerio (reported as Brachydanio rerio)	OECD Guideline 210 (fish early lite stage toxicity test)
Quartz (SiO <sub>2</sub> ), <1% respirable 14808-60-7	LC50	> 1.000 mg/l		not specified	OECD Guideline 203 (Fish, Acute Toxicity Test)
Titanium dioxide 13463-67-7	LC50	Toxicity > Water solubility	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)

**Toxicity (Daphnia):**

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
3-aminopropyltriethoxysilane 919-30-2	EC50	331 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
diboron trioxide 1303-86-2	EC50	586,04 mg/l	48 h	Ceriodaphnia dubia	other guideline:
Quartz (SiO <sub>2</sub> ), <1% respirable 14808-60-7	EC50	> 1.000 mg/l		Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Titanium dioxide 13463-67-7	EC50	Toxicity > Water solubility	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

**Chronic toxicity to aquatic invertebrates**

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
diboron trioxide 1303-86-2	NOEC	69,6 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

**Toxicity (Algae):**

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
3-aminopropyltriethoxysilane 919-30-2	EC50	603 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
3-aminopropyltriethoxysilane 919-30-2	NOEC	1,3 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
diboron trioxide 1303-86-2	EC50	337,5 mg/l	72 h	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
diboron trioxide 1303-86-2	EC10	225,4 mg/l	72 h	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Quartz (SiO <sub>2</sub> ), <1% respirable 14808-60-7	EC50	> 1.000 mg/l		not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
Titanium dioxide 13463-67-7	EC50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

**Toxicity to microorganisms**

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
3-aminopropyltriethoxysilane 919-30-2	EC10	13 mg/l	5 h	not specified	other guideline:
Quartz (SiO <sub>2</sub> ), <1% respirable 14808-60-7	EC0	> 1.000 mg/l		not specified	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Titanium dioxide 13463-67-7	EC0	Toxicity > Water solubility	24 h	Pseudomonas fluorescens	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)

**12.2. Persistence and degradability**

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
3-aminopropyltriethoxysilane 919-30-2	not readily biodegradable.	aerobic	67 %	28 d	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

**12.3. Bioaccumulative potential**

No data available.

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

Hazardous substances CAS-No.	PBT / vPvB
3-aminopropyltriethoxysilane 919-30-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
diboron trioxide 1303-86-2	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.
Quartz (SiO <sub>2</sub> ), <1% respirable 14808-60-7	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.
Titanium dioxide 13463-67-7	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.

**12.6. Other adverse effects**

No data available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Product disposal:

Do not empty into drains / surface water / ground water.

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

Dispose of in accordance with local and national regulations.

**SECTION 14: Transport information****14.1. UN number**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

**14.2. UN proper shipping name**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

**14.3. Transport hazard class(es)**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

**14.4. Packing group**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

**14.5. Environmental hazards**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

**14.6. Special precautions for user**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

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

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the article**

VOC content < 1 %  
(2010/75/EC)

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

**SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H360FD May damage fertility. May damage the unborn child.

**Further information:**

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This information is based on our current level of knowledge and relates to the article in the state in which it is delivered. It is intended to describe our articles from the point of view of safety requirements and is not intended to guarantee any particular properties.

Substances and preparations marketed in a specific form or within specific containers need not to be classified according to the REACH Regulation Article 3 (3).

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