

Safety Data Sheet according to (EC) No 1907/2006 as amended

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SDS No.: 592376

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UniBond 10B, all colours

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

UniBond 10B, all colours

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

Intended use:

Joint sealant, polymer silan-modified

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP24RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000 Fax-no.: +44 (1442) 278071

ua-productsafety.uk@henkel.com

For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Serious eye irritation

Category 2

H319 Causes serious eye irritation.

Chronic hazards to the aquatic environment

Category 3

H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label elements (CLP):



Signal word:	Warning
Hazard statement:	H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.
Supplemental information	Contains: Trimethoxyvinylsilane May produce an allergic reaction.
Precautionary statement:	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.
Precautionary statement: Prevention	P273 Avoid release to the environment. P280 Wear protective gloves/eye protection.
Precautionary statement: Response	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Precautionary statement: Disposal	P501 Dispose of contents/container in accordance with national regulation.

2.3. Other hazards

Evolves methanol during cure.

This mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Barium sulfate 7727-43-7	231-784-4 01-2119491274-35	1-< 5 %	
Titanium tetrabutanolate 5593-70-4	227-006-8 01-2119967423-33	1- < 3 %	Skin Irrit. 2; Dermal
methanol 67-56-1	200-659-6 01-2119433307-44	0,1-< 1 %	Flam. Liq. 2 H225 Acute Tox. 3; Inhalation H331 Acute Tox. 3; Dermal H311 Acute Tox. 3; Oral H301 STOT SE 1 H370
Trimethoxyvinylsilane 2768-02-7	220-449-8 01-2119513215-52	0,1-< 1 %	Flam. Liq. 3 H226 Acute Tox. 4; Inhalation H332 STOT RE 2 H373 Skin Sens. 1B H317
Titanium dioxide 13463-67-7	236-675-5 01-2119489379-17	0,1-< 1 %	Carc. 2; Inhalation H351
octamethylcyclotetrasiloxane 556-67-2	209-136-7 01-2119529238-36	0,025 < 0,25 % (0,25 %o < 2,5 %o)	Aquatic Chronic 1 H410 Repr. 2 H361f Flam. Liq. 3 H226 ==== EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC) EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC) M factor (Chron Aquat Tox): 10

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

General information:

In case of adverse health effects seek medical advice.

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Skin care. Remove contaminated clothes immediately.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remain (intensive smarting, sensitivity to light, visual disturbance) continue flushing and contact/seek doctor or hospital.

Ingestion:

Rinse mouth and throat. Drink 1-2 glasses of water. Seek medical advice.

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

Causes serious eye irritation.

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:

carbon dioxide, foam, powder, water spray jet, fine water spray

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released.

5.3. Advice for firefighters

Wear protective equipment.

Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

Ensure adequate ventilation.

Avoid contact with skin and eyes.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Remove mechanically.

Dispose of contaminated material as waste according to Section 13.

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.

Ensure that workrooms are adequately ventilated.

Hygiene measures:

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly sealed.

Store in a cool, dry place.

Temperatures between + 5 °C and + 25 °C

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

 $\begin{tabular}{ll} \textbf{7.3. Specific end use(s)} \\ \textbf{Joint sealant, polymer silan-modified} \\ \end{tabular}$

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

In gredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category/Remarks	Regulatory list
Limestone 1317-65-3 [CALCIUM CARBONATE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [CALCIUM CARBONATE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [LIMEST ONE, RESPIRABLE MARBLE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [LIMESTONE, TOTAL INHALABLE MARBLE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [Dust, respirable dust]		4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
Barium sulfate 7727-43-7 [BARIUM SULPHATE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Barium sulfate 7727-43-7 [BARIUM SULPHATE, RESPIRABLE [DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Barium sulfate 7727-43-7 [BARIUM (SOLUBLE COMPOUNDS AS BA)]		0,5	Time Weighted Average (TWA):	Indicative	ECTLV
Methanol 67-56-1 [METHANOL]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Methanol 67-56-1 [METHANOL]	200	266	Time Weighted Average (TWA):		EH40 WEL
Methanol 67-56-1 [METHANOL]	200	260	Time Weighted Average (TWA):	Indicative	ECTLV
Methanol 67-56-1 [METHANOL]	250	333	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
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

Occupational Exposure Limits

Valid for Ireland

In gre dient [Regulated substance]	ppm	mg/m ³	Value type	Shortterm exposure limit category/Remarks	Regulatorylist
Limestone 1317-65-3 [CALCIUM CARBONATE]		4	Time Weighted Average (TWA):		IR_OEL
Limestone 1317-65-3 [CALCIUM CARBONATE]		10	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS]		6	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS]		2,4	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [DUST S NON-SPECIFIC]		10	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [DUST S NON-SPECIFIC]		4	Time Weighted Average (TWA):		IR_OEL
Barium sulfate 7727-43-7 [BARIUM SULPHATE]		5	Time Weighted Average (TWA):		IR_OEL
Barium sulfate 7727-43-7 [BARIUM (SOLUBLE COMPOUNDS AS BA)]		0,5	Time Weighted Average (TWA):	Indicative	ECTLV
Methanol 67-56-1 [METHANOL]	200	260	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Methanol 67-56-1 [METHANOL]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Methanol 67-56-1 [METHANOL]	200	260	Time Weighted Average (TWA):	Indicative	ECTLV
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

$\label{eq:predicted} \textbf{Predicted No-Effect Concentration (PNEC):}$

Name on list	Environmental Exposur Compartment period	e Value		Remarks		
	Comparanent period	mg/l	ppm	mg/kg	others	
Barium sulfate	aqua	0,115 mg/l	ppin	mg/mg	others	
7727-43-7	(freshwater)					
Barium sulfate	sediment			600,4		
7727-43-7	(freshwater)			mg/kg		
Barium sulfate	Soil			207,7		
7727-43-7				mg/kg		
Barium sulfate	sewage	62,2 mg/l				
7727-43-7	treatment plant (STP)					
Titanium tetrabutanolate	aqua	0,08 mg/l				
5593-70-4	(freshwater)					
Titanium tetrabutanolate	sediment			0,069		
5593-70-4	(freshwater)			mg/kg		
Titanium tetrabutanolate	aqua	2,25 mg/l				
5593-70-4	(intermittent					
	releases)					
Titanium tetrabutanolate	sediment			0,007		
5593-70-4	(marine water)			mg/kg		
Titanium tetrabutanolate	aqua (marine	0,008 mg/l				
5593-70-4	water)					
Titanium tetrabutanolate	Sewage	65 mg/l				
5593-70-4	treatment plant					
Titanium tetrabutanolate	Soil			0,017		
5593-70-4			<u></u>	mg/kg		
methanol	aqua					no hazard identified
67-56-1	(freshwater)					
methanol	sediment					no hazard identified
67-56-1	(freshwater)					
methanol	aqua (marine					no hazard identified
67-56-1	water)					
methanol	Soil					no hazard identified
67-56-1						
methanol	sewage					no hazard identified
67-56-1	treatment plant					no nazara raemimea
	(STP)					
methanol	aqua					no hazard identified
67-56-1	(intermittent					no nazara identined
0, 201	releases)					
methanol	sediment					no hazard identified
67-56-1	(marine water)					
Trimethoxyvinylsilane	aqua	0,4 mg/l				
2768-02-7	(freshwater)	0,11191				
Trimethoxyvinylsilane	aqua (marine	0,04 mg/l				
2768-02-7	water)	3,0 1 11.8				
Trimethoxyvinylsilane	Freshwater -	1,21 mg/l				
2768-02-7	intermittent	1,21 mg1				
Trimethoxyvinylsilane	sediment		1	1,5 mg/kg		
2768-02-7	(freshwater)			1,5 mg kg		
Trimethoxyvinylsilane	sediment		1	0,15 mg/kg		
2768-02-7	(marine water)			0,13 mg kg		
Trimethoxyvinylsilane	Soil	+		0,06 mg/kg		1
2768-02-7	5011			o,oo mg kg		
Trimethoxyvinylsilane	sewage	6,6 mg/l				<u> </u>
2768-02-7	treat ment plant	0,0 1118/1				
2.50 02 /	(STP)					
Titanium dioxide	aqua		 			no hazard identified
13463-67-7	(freshwater)					no nazara identined
Titanium dioxide	aqua (marine					no hazard identified
13463-67-7	water)					no nazara identined
Titanium dioxide	sewage					no hazard identified
13463-67-7	treat ment plant					no nazara identined
10.00 01 1	(STP)					
Titanium dioxide	sediment	+	1			no hazard identified
13463-67-7	(freshwater)					no nazaru identined
Titanium dioxide	sediment	+	1			no hazard identified
						no nazaru identined
13463-67-7 Titanium dioxide	(marine water) Soil		1			no hazard identified
13463-67-7	2011					no nazaro identined
Titanium dioxide	A greatie	_	1			no hazard identified
i italiiulii dioxide	Aquatic					no nazard identified

13463-67-7	(intermit. releases)			
Titanium dioxide 13463-67-7	Predator			no hazard identified
Oct amethylcyclotetrasilox ane 556-67-2	aqua (freshwater)	0,0015 mg/l		
Octamethylcyclotetrasiloxane 556-67-2	aqua (marine water)	0,00015 mg/l		
Oct amethy lcyclotetrasilox ane 556-67-2	sewage treatment plant (STP)	10 mg/l		
Octamethylcyclotetrasiloxane 556-67-2	sediment (freshwater)		3 mg/kg	
Octamethylcyclotetrasiloxane 556-67-2	sediment (marine water)		0,3 mg/kg	
Octamethylcyclotetrasiloxane 556-67-2	oral		41 mg/kg	
Octamethylcyclotetrasiloxane 556-67-2	Soil		0,54 mg/kg	

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Barium sulfate 7727-43-7	General population	inhalation	Long term exposure - systemic effects		10 mg/m3	
Barium sulfate 7727-43-7	General population	oral	Long term exposure - systemic effects		13000 mg/kg	
Barium sulfate 7727-43-7	Workers	inhalation	Long term exposure - systemic effects		10 mg/m3	
Barium sulfate 7727-43-7	Workers	inhalation	Long term exposure - local effects		10 mg/m3	
Titanium tetrabutanolate 5593-70-4	General population	oral	Long term exposure - systemic effects		3,75 mg/kg	
Titanium tetrabutanolate 5593-70-4	General population	dermal	Long term exposure - systemic effects		37,5 mg/kg	
Titanium tetrabutanolate 5593-70-4	General population	inhalation	Long term exposure - systemic effects		152 mg/m3	
Titanium tetrabutanolate 5593-70-4	Workers	inhalation	Long term exposure - systemic effects		127 mg/m3	
methanol 67-56-1	Workers	inhalation	Long term exposure - systemic effects		260 mg/m3	no hazard identified
methanol 67-56-1	Workers	inhalation	Acute/short term exposure - systemic effects		260 mg/m3	no hazard identified
methanol 67-56-1	Workers	inhalation	Long term exposure - local effects		260 mg/m3	no hazard identified
methanol 67-56-1	Workers	inhalation	Acute/short term exposure - local effects		260 mg/m3	no hazard identified
methanol 67-56-1	Workers	dermal	Long term exposure - systemic effects		40 mg/kg	no hazard identified
methanol 67-56-1	Workers	dermal	Acute/short term exposure - systemic effects		40 mg/kg	no hazard identified
methanol 67-56-1	General population	inhalation	Long term exposure - systemic effects		50 mg/m3	no hazard identified
methanol 67-56-1	General population	inhalation	Acute/short term exposure - systemic effects		50 mg/m3	no hazard identified
methanol 67-56-1	General population	inhalation	Long term exposure - local effects		50 mg/m3	no hazard identified
methanol 67-56-1	General population	inhalation	Acute/short term exposure - local effects		50 mg/m3	no hazard identified
methanol 67-56-1	General population	dermal	Long term exposure - systemic effects		8 mg/kg	no hazard identified
methanol 67-56-1	General population	dermal	Acute/short term exposure - systemic effects		8 mg/kg	no hazard identified
methanol 67-56-1	General population	oral	Long term exposure - systemic effects		8 mg/kg	no hazard identified
methanol 67-56-1	General population	oral	Acute/short term exposure - systemic effects		8 mg/kg	no hazard identified
Trimethoxyvinylsilane 2768-02-7	Workers	dermal	Long term exposure - systemic effects		3,9 mg/kg	
Trimethoxyvinylsilane 2768-02-7	Workers	inhalation	Long term exposure -		27,6 mg/m3	

			systemic effects		
Trimethoxyvinylsilane 2768-02-7	General population	dermal	Long term exposure - systemic effects	7,8 mg/kg	
Trimethoxyvinylsilane 2768-02-7	General population	inhalation	Long term exposure - systemic effects	6,7 mg/m3	
Trimethoxyvinylsilane 2768-02-7	General population	oral	Long term exposure - systemic effects	0,3 mg/kg	
Octamethylcyclotetrasiloxane 556-67-2	Workers	inhalation	Long term exposure - systemic effects	73 mg/m3	
Octamethylcyclotetrasiloxane 556-67-2	Workers	inhalation	Long term exposure - local effects	73 mg/m3	
Octamethylcyclotetrasiloxane 556-67-2	General population	inhalation	Long term exposure - systemic effects	13 mg/m3	
Octamethylcyclotetrasiloxane 556-67-2	General population	inhalation	Long term exposure - local effects	13 mg/m3	
Oct amethylcyclotetrasilox ane 556-67-2	General population	oral	Long term exposure - systemic effects	3,7 mg/kg	

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:

The product should only be used at workplaces with intensive ventilation/extraction. If intensive ventilation/extraction is not possible then self-contained independent respiratory protection should be worn.

Hand protection:

Recommended are gloves made from Nitril rubber (Material thickness >0,1 mm, Perforation time < 30s). Gloves should be replaced after each short time contact or contamination. Available at laboratory specialized trade or at pharmacies / chemist's shops.

In the case of longer contact protective gloves made from nitrile rubber are recommended according to EN 374. material thickness > 0.2 mm

Perforation time > 10 minutes

In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Eye protection:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

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 paste

pasty

varied, according to

coloration

Odor characteristic

Odour threshold No data available / Not applicable

pH Not applicable, Mixture reacts with water.

Melting point No data available / Not applicable No data available / Not applicable Solidification temperature No data available / Not applicable Initial boiling point Flash point 117 °C (242.6 °F); no method No data available / Not applicable Evaporation rate Flammability No data available / Not applicable Explosive limits No data available / Not applicable No data available / Not applicable Vapour pressure No data available / Not applicable Relative vapour density:

Density 1,4 g/cm³

(20 °C (68 °F))

Bulk density No data available / Not applicable Solubility No data available / Not applicable

Solubility (qualitative) Insoluble

(23 °C (73.4 °F); Solvent: Water)

Partition coefficient: n-octanol/water

Auto-ignition temperature

Decomposition temperature

No data available / Not applicable
No data available / Not applicable
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
No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

Evolves methanol during cure.

SECTION 11: Toxicological information

General toxicological information:

An allergic reaction cannot be excluded after repeated skin contact.

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Barium sulfate 7727-43-7	LD50	> 15.000 mg/kg	rat	not specified
Titanium tetrabutanolate 5593-70-4	LD50	3.122 mg/kg	rat	not specified
methanol 67-56-1	Acute toxicity estimate (ATE)	300 mg/kg		Expert judgement
Trimethoxyvinylsilane 2768-02-7	LD50	7.120 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Titanium dioxide 13463-67-7	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
octamethylcyclotetrasilox ane 556-67-2	LD50	> 4.800 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Barium sulfate 7727-43-7	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Titanium tetrabutanolate 5593-70-4	LD50	5.300 mg/kg	rabbit	not specified
Trimethoxyvinylsilane 2768-02-7	LD50	3.200 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Titanium dioxide 13463-67-7	LD50	>= 10.000 mg/kg	hamster	not specified
octamethylcyclotetrasilox ane 556-67-2	LD50	> 2.375 mg/kg	rat	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Test atmosphere	Exposure	Species	Method
CAS-No.	type			time		
Titanium tetrabutanolate 5593-70-4	LC50	11 mg/l	dust/mist	4 h	rat	not specified
Trimethoxyvinylsilane 2768-02-7	LC50	16,8 mg/l	vapour	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
octamethylcyclotetrasilox ane 556-67-2	LC50	36 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Barium sulfate 7727-43-7	not irritating	15 min	Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE)	EPISKIN Method
methanol 67-56-1	not irritating	20 h	rabbit	BASF Test
Trimethoxyvinylsilane 2768-02-7	not irritating		rabbit	other guideline:
Titanium dioxide 13463-67-7	not irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
octamethylcyclotetrasilox ane 556-67-2	not irritating		rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Barium sulfate 7727-43-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
methanol 67-56-1	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Trimethoxyvinylsilane 2768-02-7	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)
octamethylcyclotetrasilox ane 556-67-2	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation/Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Barium sulfate 7727-43-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
methanol 67-56-1	not sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
Trimethoxyvinylsilane 2768-02-7	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)
octamethylcyclotetrasilox ane 556-67-2	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study/ Route of administration	Metabolic activation / Exposure time	Species	Method
Barium sulfate	negative	bacterial reverse	with and without		OECD Guideline 471
7727-43-7		mutation assay (e.g Ames test)			(Bacterial Reverse Mutation Assay)
Barium sulfate 7727-43-7	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Barium sulfate 7727-43-7	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene
					Mutation Test)
methanol 67-56-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
methanol 67-56-1	negative	in vitro mammalian cell micronucleus test	without		not specified
methanol	negative	mammalian cell	with and without		equivalent or similar to OECD
67-56-1	negative	gene mutation assay	with and without		Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Trimethoxyvinylsilane	negative	bacterial reverse	with and without		OECD Guideline 471
2768-02-7		mutation assay (e.g Ames test)			(Bacterial Reverse Mutation Assay)
Trimethoxyvinylsilane 2768-02-7	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Trimethoxyvinylsilane 2768-02-7	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
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)
octamethylcyclotetrasilox ane 556-67-2	negative	bacterial gene mutation assay	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
octamethylcyclotetrasilox ane 556-67-2	negative	in vitro mammalian chromosome aberration test	with and without		equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
oct amethylcyclotetrasilox ane 556-67-2	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
methanol 67-56-1	negative	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Trimethoxyvinylsilane 2768-02-7	negative	intraperitoneal		mouse	other guideline:
Titanium dioxide 13463-67-7	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
octamethylcyclotetrasilox ane 556-67-2	negative	inhalation		rat	equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
octamethylcyclotetrasilox ane 556-67-2	negative	oral: gavage		rat	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Barium sulfate 7727-43-7		oral: drinking water	2 y daily	rat	male/female	not specified
methanol 67-56-1	not carcinogenic	inhalation: vapour	18 m 19 h/d	mouse	male/female	equivalent or similar OECD Guideline 453 (Combined Chronic Toxicity/ 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:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
methanol 67-56-1	NOAEL P 1,3 mg/l NOAEL F1 0,13 mg/l NOAEL F2 0,13 mg/l	Two generation study	inhalation	rat	equivalent or similar to OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
Trimethoxyvinylsilane 2768-02-7	NOAEL P 250 mg/kg	one- generation study	oral: gavage	rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)
Trimethoxyvinylsilane 2768-02-7	NOAEL P 1.000 mg/kg	one- generation study	oral: gavage	rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)
Trimethoxyvinylsilane 2768-02-7	NOAEL F1 1.000 mg/kg	one- generation study	oral: gavage	rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)
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)
oct amethylcyclotetrasilox ane 556-67-2	NOAEL P 300 ppm NOAEL F1 300 ppm	two- generation study	inhalation	rat	equivalent or similar to OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)

$STOT\text{-}single\ exposure:$

No data available.

$STOT\text{-}repeated\,exposure::\\$

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Barium sulfate 7727-43-7	NOAEL 2000 ppm	oral: drinking water	92 d daily	rat	not specified
methanol 67-56-1	NOAEL 6,63 mg/l	inhalation: vapour	4 weeks 6 h/d, 5 d/w	rat	equivalent or similar to OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
methanol 67-56-1	NOAEL 0,13 mg/l	inhalation: vapour	12 m 20 h/d	rat	equivalent or similar to OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Trimethoxyvinylsilane 2768-02-7	NOAEL < 62,5 mg/kg	oral: gavage	42d daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Trimethoxyvinylsilane 2768-02-7	NOAEL 0,605 mg/l	inhalation: vapour	5 days/week for 14 weeks 6 hours/day	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)
oct amethylcyclotetrasilox ane 556-67-2	11	inhalation	6 h nose only inhalation 5 days/week for 13 weeks	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
octamethylcyclotetrasilox ane 556-67-2	NOAEL 960 mg/kg	dermal	3 w 5 d/w	rabbit	equivalent or similar to OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	S pe cies	Method
Barium sulfate 7727-43-7	LC50	Toxicity>Water solubility	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Barium sulfate 7727-43-7	NOEC	Toxicity>Water solubility	33 d	Danio rerio	OECD Guideline 210 (fish early lite stage toxicity test)
methanol 67-56-1	LC50	15.400 mg/l	96 h	Lepomis macrochirus	EPA-660 (Methods for Acute Toxicity Tests with Fish, Macroin vertebrates and Amphibians)
methanol 67-56-1	NOEC	7.900 mg/l	200 h	Oryzias latipes	OECD Guideline 210 (fish early lite stage toxicity test)
Trimethoxyvinylsilane 2768-02-7	LC50	191 mg/l	96 h	Oncorhynchus mykiss	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)
octamethylcyclotetrasiloxane 556-67-2	NOEC	0,0044 mg/l	93 d	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OPPTS 797.1600 (Fish Early Life Stage Toxicity Test)
octamethylcyclotetrasiloxane 556-67-2	LC50	Toxicity>Water solubility	96 h	Oncorhynchus mykiss	EPA OT S 797.1400 (Fish Acute Toxicity Test)

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Barium sulfate 7727-43-7	EC50	Γoxicity > Water solubility	48 h	Daphnia	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
methanol 67-56-1	EC50	18.260 mg/l	96 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Trimethoxyvinylsilane 2768-02-7	EC50	168,7 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
Titanium dioxide 13463-67-7	EC50	Γoxicity > Water solubility	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
oct amethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Barium sulfate	NOEC	Toxicity>Water	21 day	Daphnia magna	OECD 211 (Daphnia
7727-43-7		solubility			magna, Reproduction Test)
Trimethoxyvinylsilane	NOEC	28,1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
2768-02-7					magna, Reproduction Test)
octamethylcyclotetrasiloxane	NOEC	7.9 μg/l	21 d	Daphnia magna	EPA OTS797.1330
556-67-2					(Daphnid Chronic Toxicity
					Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Barium sulfate	EC50	Toxicity>Water	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga,
7727-43-7		solubility		(reported as Raphidocelis subcapitata)	Growth Inhibition Test)
Barium sulfate	NOEC	Toxicity>Water	72 h	Pseudokirchneriella subcapitata	(2)
7727-43-7		solubility		(reported as Raphidocelis subcapitata)	Growth Inhibition Test)
Titanium tetrabutanolate 5593-70-4	EC50	225 mg/l	96 h	Algae, algal mat (Algae)	not specified
methanol	EC50	22.000 mg/l	96 h	Selenastrum capricomutum	OECD Guideline 201 (Alga,
67-56-1				(new name: Pseudo kirchneriella subcapitata)	Growth Inhibition Test)
Trimethoxyvinylsilane 2768-02-7	EC50	> 957 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Trimethoxyvinylsilane	NOEC	957 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal
2768-02-7					Inhibition test)
Titanium dioxide 13463-67-7	EC50	Γoxicity>Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
octamethylcyclotetrasiloxane	EC50	Toxicity>Water	96 h	Selenastrum capricomutum	EPA OT S 797.1050 (Algal
556-67-2		solubility		(new name: Pseudokirchneriella	Toxicity, Tiers I and II)
				subcapitata)	
octamethylcyclotetrasiloxane	EC10	0,022 mg/l	96 h	Selenastrum capricomutum	EPA OTS 797.1050 (Algal
556-67-2				(new name: Pseudo kirchneriella subcapitata)	Toxicity, Tiers I and II)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Barium sulfate 7727-43-7	EC0	> 10.000 mg/l	30 min		not specified
methanol 67-56-1	IC50	> 1.000 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Trimethoxyvinylsilane 2768-02-7	EC50	> 100 mg/l	3 h	activated sludge of a predominantly domestic sewage	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)
octamethylcyclotetrasiloxane 556-67-2	EC50	Γoxicity > Water solubility	3 h	act i v ated sludge	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)

12.2. Persistence and degradability

Haz ardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
methanol	readily biodegradable	aerobic	82 - 92 %	30 d	EU Method C.4-E (Determination
67-56-1					of the "Ready"
					BiodegradabilityClosed Bottle
					Test)
Trimethoxyvinylsilane	not readily biodegradable.	aerobic	51 %	28 d	OECD Guideline 301 F (Ready
2768-02-7					Biodegradability: Manometric
					Respirometry Test)
octamethylcyclotetrasiloxane	not readily biodegradable.	aerobic	3,7 %	29 d	OECD Guideline 310 (Ready
556-67-2					BiodegradabilityCO2 in Sealed
					Vessels (Headspace Test)

12.3. Bioaccumulative potential

Hazardous substances	Bioconcentratio	Exposure time	Tempe rature	Species	Method
CAS-No.	n factor (BCF)				
Barium sulfate	74,4			Lepomis	other guideline:
7727-43-7				macrochirus	_
methanol	< 10	72 h		Leuciscus idus	not specified
67-56-1				melanotus	
octamethylcyclotetrasiloxane	12.400	28 d		Pimephales	EPA OTS 797.1520 (Fish
556-67-2				promelas	Bioconcentration Test-Rainbow
				1	Trout)

12.4. Mobility in soil

Hazardous substances	LogPow	Tempe rature	Method
CAS-No.			
methanol 67-56-1	-0,77		other guideline:
octamethylcyclotetrasiloxane 556-67-2	6,488	25,1 °C	OECD Guideline 123 (Partition Coefficient (1-Octanol / Water), Slow- Stirring Method)

12.5. Results of PBT and vPvB assessment

Haz ardous substances	PBT/ vPvB	
CAS-No.		
Barium sulfate	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not	
7727-43-7	be conducted for inorganic substances.	
Titanium tetrabutanolate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very	
5593-70-4	Bioaccumulative (vPvB) criteria.	
methanol	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very	
67-56-1	Bioaccumulative (vPvB) criteria.	
Trimethoxyvinylsilane	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very	
2768-02-7	Bioaccumulative (vPvB) criteria.	
Titanium dioxide	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not	
13463-67-7	be conducted for inorganic substances.	
octamethylcyclotetrasiloxane	Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very	
556-67-2	Bioaccumulative (vPvB) criteria.	

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Waste code 080409

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

No information available:

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Not applicable Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Not applicable Persistent organic pollutants (Regulation (EU) 2019/1021): Not applicable

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:

H225 Highly flammable liquid and vapor.

H226 Flammable liquid and vapor.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H361f Suspected of damaging fertility.

H370 Causes damage to organs.

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Further information:

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