



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

Page 1 of 17

UniBond 3B Transparent

SDS No. : 591905  
V002.1

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

#### 1.1. Product identifier

UniBond 3B Transparent

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

Intended use:

Joint sealant, silicone

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

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> or [www.henkel-adhesives.com](http://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](mailto:technical.services@henkel.co.uk)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (CLP):

Chronic hazards to the aquatic environment

H411 Toxic to aquatic life with long lasting effects.

Category 2

#### 2.2. Label elements

##### Label elements (CLP):

##### Hazard pictogram:



##### Hazard statement:

H411 Toxic to aquatic life with long lasting effects.

**Precautionary statement:** P102 Keep out of reach of children.  
P101 If medical advice is needed, have product container or label at hand.  
P262 Do not get in eyes, on skin, or on clothing.  
P273 Avoid release to the environment.  
P501 Dispose of contents/container in accordance with national regulation.

### 2.3. Other hazards

Evolves acetic acid during cure.

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

Following substances are present in a concentration  $\geq$  the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

octamethylcyclotetrasiloxane 556-67-2	PBT/vPvB
Decamethylcyclopentasiloxane 541-02-6	PBT/vPvB
Dodecamethylcyclohexasiloxane 540-97-6	PBT/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.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
Acetic acid 64-19-7 200-580-7 01-2119475328-30	1- < 3 %	Flam. Liq. 3, H226 Skin Corr. 1A, H314 Met. Corr. 1, H290	Skin Corr. 1B; H314; C 25 - < 90 % Skin Corr. 1A; H314; C $\geq$ 90 % Eye Irrit. 2; H319; C 10 - < 25 % Skin Irrit. 2; H315; C 10 - < 25 % Met. Corr. ; H290; C $\geq$ 90 %	EU OEL
octamethylcyclotetrasiloxane 556-67-2 209-136-7 01-2119529238-36	1- < 2,5 %	Aquatic Chronic 1, H410 Repr. 2, H361f Flam. Liq. 3, H226	M chronic = 10	SVHC PBT/vPvB
Decamethylcyclopentasiloxane 541-02-6 208-764-9 01-2119511367-43	0,1- < 1 %			SVHC PBT/vPvB
Dodecamethylcyclohexasiloxane 540-97-6 208-762-8 01-2119517435-42	0,1- < 1 %	Aquatic Chronic 4, H413		SVHC PBT/vPvB
Titanium dioxide 13463-67-7 236-675-5 01-2119489379-17	0,1- < 1 %	Carc. 2, Inhalation, H351		

**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**

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:**

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 (CO<sub>2</sub>) 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**

Ensure that workrooms are adequately ventilated.  
Avoid skin and eye contact.

## Hygiene measures:

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**

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.).

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

Joint sealant, silicone

**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
Acetic acid 64-19-7 [ACETIC ACID]	10	25	Time Weighted Average (TWA):	Indicative	ECTLV
Acetic acid 64-19-7 [ACETIC ACID]	20	50	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Acetic acid 64-19-7 [ACETIC ACID]	10	25	Time Weighted Average (TWA):		EH40 WEL
Acetic acid 64-19-7 [ACETIC ACID]	20	50	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
Acetic acid 64-19-7 [ACETIC ACID]	10	25	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Acetic acid 64-19-7 [ACETIC ACID]	10	25	Time Weighted Average (TWA):	Indicative	ECTLV
Acetic acid 64-19-7 [ACETIC ACID]	20	50	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Acetic acid 64-19-7 [ACETIC ACID]	20	50	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL

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

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
acetic acid 64-19-7	aqua (freshwater)		3,058 mg/l				
acetic acid 64-19-7	aqua (marine water)		0,3058 mg/l				
acetic acid 64-19-7	aqua (intermittent releases)		30,58 mg/l				
acetic acid 64-19-7	sewage treatment plant (STP)		85 mg/l				
acetic acid 64-19-7	sediment (freshwater)				11,36 mg/kg		
acetic acid 64-19-7	sediment (marine water)				1,136 mg/kg		
acetic acid 64-19-7	Soil				0,478 mg/kg		
Octamethylcyclotetrasiloxane 556-67-2	aqua (freshwater)		0,0015 mg/l				
Octamethylcyclotetrasiloxane 556-67-2	aqua (marine water)		0,00015 mg/l				
Octamethylcyclotetrasiloxane 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		
Decamethylcyclopentasiloxane 541-02-6	aqua (freshwater)		0,0012 mg/l				
Decamethylcyclopentasiloxane 541-02-6	aqua (marine water)		0,00012 mg/l				
Decamethylcyclopentasiloxane 541-02-6	sewage treatment plant (STP)		10 mg/l				
Decamethylcyclopentasiloxane 541-02-6	sediment (freshwater)				11 mg/kg		
Decamethylcyclopentasiloxane 541-02-6	Soil				2,54 mg/kg		
Decamethylcyclopentasiloxane 541-02-6	oral				16 mg/kg		
Decamethylcyclopentasiloxane 541-02-6	sediment (marine water)				1,1 mg/kg		
Dodecamethylcyclohexasiloxane 540-97-6	sediment (freshwater)				13,5 mg/kg		
Dodecamethylcyclohexasiloxane 540-97-6	oral				66,7 mg/kg		
Dodecamethylcyclohexasiloxane 540-97-6	sediment (marine water)				1,35 mg/kg		

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

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
acetic acid 64-19-7	Workers	inhalation	Acute/short term exposure - local effects		25 mg/m <sup>3</sup>	
acetic acid 64-19-7	General population	inhalation	Acute/short term exposure - local effects		25 mg/m <sup>3</sup>	
acetic acid 64-19-7	Workers	inhalation	Long term exposure - local effects		25 mg/m <sup>3</sup>	
acetic acid 64-19-7	General population	inhalation	Long term exposure - local effects		25 mg/m <sup>3</sup>	
Octamethylcyclotetrasiloxane 556-67-2	Workers	inhalation	Long term exposure - systemic effects		73 mg/m <sup>3</sup>	
Octamethylcyclotetrasiloxane 556-67-2	Workers	inhalation	Long term exposure - local effects		73 mg/m <sup>3</sup>	
Octamethylcyclotetrasiloxane 556-67-2	General population	inhalation	Long term exposure - systemic effects		13 mg/m <sup>3</sup>	
Octamethylcyclotetrasiloxane 556-67-2	General population	inhalation	Long term exposure - local effects		13 mg/m <sup>3</sup>	
Octamethylcyclotetrasiloxane 556-67-2	General population	oral	Long term exposure - systemic effects		3,7 mg/kg	
Decamethylcyclopentasiloxane 541-02-6	Workers	inhalation	Long term exposure - systemic effects		97,3 mg/m <sup>3</sup>	
Decamethylcyclopentasiloxane 541-02-6	Workers	inhalation	Long term exposure - local effects		24,2 mg/m <sup>3</sup>	
Decamethylcyclopentasiloxane 541-02-6	General population	oral	Long term exposure - systemic effects		5 mg/kg	
Decamethylcyclopentasiloxane 541-02-6	General population	inhalation	Long term exposure - systemic effects		17,3 mg/m <sup>3</sup>	
Decamethylcyclopentasiloxane 541-02-6	General population	inhalation	Long term exposure - local effects		4,3 mg/m <sup>3</sup>	
Dodecamethylcyclohexasiloxane 540-97-6	Workers	inhalation	Long term exposure - local effects		1,22 mg/m <sup>3</sup>	
Dodecamethylcyclohexasiloxane 540-97-6	Workers	inhalation	Acute/short term exposure - local effects		6,1 mg/m <sup>3</sup>	
Dodecamethylcyclohexasiloxane 540-97-6	General population	inhalation	Long term exposure - local effects		0,3 mg/m <sup>3</sup>	
Dodecamethylcyclohexasiloxane 540-97-6	General population	inhalation	Acute/short term exposure - local effects		1,5 mg/m <sup>3</sup>	
Titanium dioxide 13463-67-7	Workers	inhalation	Long term exposure - local effects		0,17 mg/m <sup>3</sup>	
Titanium dioxide 13463-67-7	General population	inhalation	Long term exposure - local effects		0,028 mg/m <sup>3</sup>	

**Biological Exposure Indices:**  
None

**8.2. Exposure controls:**

Respiratory protection:  
 Suitable breathing mask when there is inadequate ventilation.  
 Combination filter: ABEKP (EN 14387)  
 This recommendation should be matched to local conditions.

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 > 0.4 mm  
 Perforation time > 30 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

Physical state	solid
Delivery form	paste
Colour	transparent
Odor	specific
Melting point	< -50 °C (< -58 °F) Lower limit DSC
Solidification temperature	Not applicable, Product is a solid.
Initial boiling point	Currently under determination
Flammability	The product is not flammable.
Explosive limits	Not applicable, Product is a solid.
Flash point	Not applicable, Product is a solid.
Auto-ignition temperature	Not applicable, Product is a solid.
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use
pH	Not applicable, Product is non-soluble (in water).
pH	Not applicable, Product is non-soluble (in water).
Viscosity (kinematic)	Not applicable, Product is a solid.
Solubility (qualitative)	Insoluble
(23 °C (73.4 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	Not applicable
	Mixture
Vapour pressure	< 0,5 Pa
(20 °C (68 °F))	
Density	1,03 g/cm <sup>3</sup> Density of pasty masses (immersion weighing method)
(20 °C (68 °F))	
Relative vapour density:	Not applicable, Product is a solid.
Particle characteristics	Not applicable, mixture is a paste.

### 9.2. Other information

Other information not applicable for this product

## 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 acetic acid during cure.

## SECTION 11: Toxicological information

### 1.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### 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
Acetic acid 64-19-7	LD50	3.310 mg/kg	rat	not specified
octamethylcyclotetrasiloxane 556-67-2	LD50	> 4.800 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Decamethylcyclopentasiloxane 541-02-6	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Dodecamethylcyclohexasiloxane 540-97-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
Titanium dioxide 13463-67-7	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)

#### Acute dermal 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
Acetic acid 64-19-7	LD50	> 2.000 mg/kg	not specified	not specified
octamethylcyclotetrasiloxane 556-67-2	LD50	> 2.375 mg/kg	rat	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Decamethylcyclopentasiloxane 541-02-6	LD50	> 2.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Dodecamethylcyclohexasiloxane 540-97-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Titanium dioxide 13463-67-7	LD50	> 10.000 mg/kg	rabbit	not specified

**Acute inhalative 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	Test atmosphere	Exposure time	Species	Method
Acetic acid 64-19-7	LC50	> 40 mg/l	vapour	4 h	rat	not specified
octamethylcyclotetrasiloxane 556-67-2	LC50	36 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Decamethylcyclopentasiloxane 541-02-6	LC50	8,67 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:**

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
octamethylcyclotetrasiloxane 556-67-2	not irritating		rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Decamethylcyclopentasiloxane 541-02-6	not irritating	24 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Dodecamethylcyclohexasiloxane 540-97-6	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Titanium dioxide 13463-67-7	not irritating	4 h	rabbit	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 CAS-No.	Result	Exposure time	Species	Method
octamethylcyclotetrasiloxane 556-67-2	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Decamethylcyclopentasiloxane 541-02-6	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Dodecamethylcyclohexasiloxane 540-97-6	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:**

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
octamethylcyclotetrasiloxane 556-67-2	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Decamethylcyclopentasiloxane 541-02-6	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Dodecamethylcyclohexasiloxane 540-97-6	not sensitising	Guinea pig maximisation 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)
Titanium dioxide 13463-67-7	not sensitising	Buehler 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.

<b>Hazardous substances CAS-No.</b>	<b>Result</b>	<b>Type of study / Route of administration</b>	<b>Metabolic activation / Exposure time</b>	<b>Species</b>	<b>Method</b>
Acetic acid 64-19-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Acetic acid 64-19-7	negative	in vitro mammalian chromosome aberration test	with and without		equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Acetic acid 64-19-7	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to 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)
octamethylcyclotetrasilox 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)
Decamethylcyclopentasilox ane 541-02-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Decamethylcyclopentasilox ane 541-02-6	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Decamethylcyclopentasilox ane 541-02-6	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Dodecamethylcyclohexasi loxane 540-97-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Dodecamethylcyclohexasi loxane 540-97-6	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)
Titanium dioxide 13463-67-7	negative	in vitro mammalian cell micronucleus test	without		equivalent or similar to OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Acetic acid 64-19-7	negative	inhalation: vapour		rat	EU Method B.12 (Mutagenicity)
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)
Decamethylcyclopentasilox ane 541-02-6	negative	inhalation		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)
Decamethylcyclopentasilox ane 541-02-6	negative	inhalation: vapour		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Dodecamethylcyclohexasiloxane 540-97-6	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Titanium dioxide 13463-67-7	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus 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
Acetic acid 64-19-7	not carcinogenic	dermal	32 w daily	mouse	female	not specified
Decamethylcyclopentasiloxane 541-02-6	not carcinogenic	inhalation: vapour	2 y 6 h/d, 5 d/w	rat	male/female	EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity)
Titanium dioxide 13463-67-7	not carcinogenic	oral: feed	103 w daily	rat	male/female	not specified

### 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
octamethylcyclotetrasiloxane 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)
Decamethylcyclopentasiloxane 541-02-6	NOAEL P >= 2,496 mg/l NOAEL F1 >= 2,496 mg/l NOAEL F2 >= 2,496 mg/l	two- generation study	inhalation: vapour	rat	EPA OPPTS 870.3800 (Reproduction and Fertility Effects)
Dodecamethylcyclohexasiloxane 540-97-6	NOAEL P 1.000 mg/kg NOAEL F1 1.000 mg/kg	screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Titanium dioxide 13463-67-7	NOAEL P >= 1.000 mg/kg NOAEL F1 >= 1.000 mg/kg	one- generation study	oral: feed	rat	OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study)

### STOT-single exposure:

No data available.

**STOT-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
Acetic acid 64-19-7	NOAEL 290 mg/kg	oral: feed	8 w daily	rat	not specified
octamethylcyclotetrasiloxane 556-67-2	LOAEL 35 ppm	inhalation	6 h nose only inhalation 5 days/week for 13 weeks	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
octamethylcyclotetrasiloxane 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)
Decamethylcyclopentasiloxane 541-02-6	NOAEL >= 1.000 mg/kg	oral: gavage	13 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Decamethylcyclopentasiloxane 541-02-6	NOAEL >= 2,42 mg/l	inhalation: vapour	2 y 6 h/d, 5 d/w	rat	equivalent or similar to OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Decamethylcyclopentasiloxane 541-02-6	NOAEL >= 1.600 mg/kg	oral: gavage	28 d 6 h/d, 7 d/w	rat	equivalent or similar to OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
Dodecamethylcyclohexasiloxane 540-97-6	NOAEL 1.000 mg/kg	oral: gavage	29 d daily, 7 d/w	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Titanium dioxide 13463-67-7	NOAEL > 1.000 mg/kg	oral: gavage	92 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

**Aspiration hazard:**

No data available.

**11.2 Information on other hazards**

not applicable

## 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	Species	Method
Acetic acid 64-19-7	LC50	> 1.000 mg/l	96 h	Oncorhynchus mykiss	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 OTS 797.1400 (Fish Acute Toxicity Test)
Decamethylcyclopentasiloxane 541-02-6	LC50	Toxicity > Water solubility	96 h	Leuciscus idus	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Decamethylcyclopentasiloxane 541-02-6	NOEC	Toxicity > Water solubility	90 d	Oncorhynchus mykiss	OECD Guideline 210 (fish early lite stage toxicity test)
Dodecamethylcyclohexasiloxane 540-97-6	NOEC	Toxicity > Water solubility	90 d	Oncorhynchus mykiss	OECD Guideline 210 (fish early lite stage toxicity test)
Titanium dioxide 13463-67-7	LC50	Toxicity > Water solubility	48 h	Leuciscus idus	OECD Guideline 203 (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
Acetic acid 64-19-7	EC50	> 1.000 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
Decamethylcyclopentasiloxane 541-02-6	EC50	Toxicity > Water solubility	48 h	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

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
octamethylcyclotetrasiloxane 556-67-2	NOEC	7.9 µg/l	21 d	Daphnia magna	EPA OTS 797.1330 (Daphnid Chronic Toxicity Test)
Decamethylcyclopentasiloxane 541-02-6	NOEC	Toxicity > Water solubility	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Dodecamethylcyclohexasiloxane 540-97-6	NOEC	Toxicity > Water solubility	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Titanium dioxide 13463-67-7	NOEC	Toxicity > Water solubility	21 d	Daphnia magna	OECD Guideline 202 (Daphnia sp. Chronic Immobilisation Test)

**Toxicity (Algae):**

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
Acetic acid 64-19-7	EC50	> 1.000 mg/l	72 h	Skeletonema costatum	ISO 10253:2006 (Marine algal growth inhibition test)
Acetic acid 64-19-7	NOEC	1.000 mg/l	72 h	Skeletonema costatum	ISO 10253:2006 (Marine algal growth inhibition test)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
octamethylcyclotetrasiloxane 556-67-2	EC10	0,022 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
Decamethylcyclopentasiloxane 541-02-6	NOEC	Toxicity > Water solubility	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Decamethylcyclopentasiloxane 541-02-6	EC50	Toxicity > Water solubility	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dodecamethylcyclohexasiloxane 540-97-6	NOEC	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dodecamethylcyclohexasiloxane 540-97-6	EC50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	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)
Titanium dioxide 13463-67-7	NOEC	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

**Toxicity to microorganisms**

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
Acetic acid 64-19-7	NOEC	1.150 mg/l	16 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	3 h	activated sludge	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
Decamethylcyclopentasiloxane 541-02-6	EC50	> 2.000 mg/l	3 h	activated sludge, domestic	EU Method C.11 (Biodegradation: 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
Acetic acid 64-19-7	readily biodegradable	aerobic	89 - 99 %	30 d	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)
octamethylcyclotetrasiloxane 556-67-2	not readily biodegradable.	aerobic	3,7 %	29 d	OECD Guideline 310 (Ready Biodegradability CO <sub>2</sub> in Sealed Vessels (Headspace Test))
Decamethylcyclopentasiloxane 541-02-6	not readily biodegradable.	aerobic	0,14 %	28 d	OECD Guideline 310 (Ready Biodegradability CO <sub>2</sub> in Sealed Vessels (Headspace Test))
Dodecamethylcyclohexasiloxane 540-97-6	not readily biodegradable.	aerobic	4,47 %	28 d	OECD Guideline 310 (Ready Biodegradability CO <sub>2</sub> in Sealed Vessels (Headspace Test))

**12.3. Bioaccumulative potential**

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
octamethylcyclotetrasiloxane 556-67-2	12.400	28 d		Pimephales promelas	EPA OTS 797.1520 (Fish Bioconcentration Test-Rainbow Trout)
Decamethylcyclopentasiloxane 541-02-6	7.060	35 d		Pimephales promelas	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Dodecamethylcyclohexasiloxane 540-97-6	1.160	49 d		Pimephales promelas	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)

**12.4. Mobility in soil**

Hazardous substances CAS-No.	LogPow	Temperature	Method
Acetic acid 64-19-7	-0,17	25 °C	other guideline:
octamethylcyclotetrasiloxane 556-67-2	6,98	21,7 °C	other guideline:
Decamethylcyclopentasiloxane 541-02-6	8,07	24,6 °C	other guideline:
Dodecamethylcyclohexasiloxane 540-97-6	8,87	23,6 °C	other guideline:

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

Hazardous substances CAS-No.	PBT / vPvB
Acetic acid 64-19-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
octamethylcyclotetrasiloxane 556-67-2	Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Decamethylcyclopentasiloxane 541-02-6	Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Dodecamethylcyclohexasiloxane 540-97-6	Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
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. Endocrine disrupting properties**

not applicable

**12.7. 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

<b>SECTION 14: Transport information</b>
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**14.1. UN number or ID number**

ADR	3077
RID	3077
ADN	3077
IMDG	3077
IATA	3077

**14.2. UN proper shipping name**

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (octamethylcyclotetrasiloxane)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (octamethylcyclotetrasiloxane)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (octamethylcyclotetrasiloxane)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (octamethylcyclotetrasiloxane)
IATA	Environmentally hazardous substance, solid, n.o.s.

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

ADR	9
RID	9
ADN	9
IMDG	9
IATA	9

**14.4. Packing group**

ADR	III
RID	III
ADN	III
IMDG	III
IATA	III

**14.5. Environmental hazards**

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	Marine pollutant
IATA	not applicable

**14.6. Special precautions for user**

ADR	not applicable Tunnelcode:
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), A197 (IATA), 2.10.2.7 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

**14.7. Maritime transport in bulk according to IMO instruments**

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:

H226 Flammable liquid and vapour.  
 H290 May be corrosive to metals.  
 H314 Causes severe skin burns and eye damage.  
 H351 Suspected of causing cancer.  
 H361f Suspected of damaging fertility.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H413 May cause long lasting harmful effects to aquatic life.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

### Further information:

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