



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

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LOCTITE SI 5970 BK CR50ML EN/DE

SDS No. : 152790

V010.4

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

1.1. Product identifier

LOCTITE SI 5970 BK CR50ML EN/DE

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

Intended use:
Silicone sealant

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

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)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2. Label elements

Label elements (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

Supplemental information

Contains: Trimethoxyvinylsilane; 3-aminopropyltriethoxysilane May produce an allergic reaction.

Safety data sheet available on request.

2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Self-classification according to Article 12(b) of (EU) 1272/2008.

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
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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
Hexamethyldisilazane 999-97-3 213-668-5 01-2119438176-38	1- < 3 %	Flam. Liq. 2, H225 Acute Tox. 4, Oral, H302 Acute Tox. 3, Dermal, H311 Acute Tox. 4, Inhalation, H332 Aquatic Chronic 3, H412	inhalation:ATE = 10,1 mg/l;vapour	
Hexamethyldisiloxane 107-46-0 203-492-7 01-2119496108-31	0,25- < 2,5 %	Flam. Liq. 2, H225 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M acute = 1	
3-aminopropyltriethoxysilane 919-30-2 213-048-4 01-2119480479-24	0,1- < 1 %	Skin Sens. 1B, H317 Skin Corr. 1B, H314 Acute Tox. 4, Oral, H302		
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		
octamethylcyclotetrasiloxane 556-67-2 209-136-7 01-2119529238-36	0,01- < 0,1 %	Aquatic Chronic 1, H410 Repr. 2, H361f Flam. Liq. 3, H226	M chronic = 10	SVHC PBT/vPvB

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 from a specialist.

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

Prolonged or repeated contact may cause eye irritation.

Prolonged or repeated contact may cause skin 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:**

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 substance or mixture

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

Silicon dioxide

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

Dispose of contaminated material as waste according to Section 13.

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

6.4. Reference to other sections

See advice in section 8

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

See advice in section 8

Avoid skin and eye contact.

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

Protect against contamination.

Store in sealed original container.

Ensure good ventilation/extraction.

Store in a cool, well-ventilated place.

Refer to Technical Data Sheet

Never allow product to get in contact with water during storage

7.3. Specific end use(s)

Silicone sealant

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [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 [LIMESTONE, 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
Calcium carbonate 471-34-1 [CALCIUM CARBONATE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [CALCIUM CARBONATE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [LIMESTONE, RESPIRABLE MARBLE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [LIMESTONE, TOTAL INHALABLE MARBLE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [Dust, respirable dust]		4	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [Dust, respirable dust]		4	Time Weighted Average (TWA):		EH40 WEL
Carbon black 1333-86-4 [CARBON BLACK]		3,5	Time Weighted Average (TWA):		EH40 WEL
Carbon black 1333-86-4 [CARBON BLACK]		7	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

Occupational Exposure LimitsValid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
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
Calcium carbonate 471-34-1 [CALCIUM CARBONATE]		4	Time Weighted Average (TWA):		IR_OEL
Calcium carbonate 471-34-1 [CALCIUM CARBONATE]		10	Time Weighted Average (TWA):		IR_OEL
Calcium carbonate 471-34-1 [DUSTS NON-SPECIFIC]		4	Time Weighted Average (TWA):		IR_OEL
Calcium carbonate 471-34-1 [DUSTS NON-SPECIFIC]		10	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [DUSTS NON-SPECIFIC]		10	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS]		2,4	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS]		6	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [DUSTS NON-SPECIFIC]		4	Time Weighted Average (TWA):		IR_OEL
Carbon black 1333-86-4 [CARBON BLACK]		3	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	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	aqua (freshwater)		0,25 mg/l				
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	aqua (marine water)		0,025 mg/l				
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	sediment (freshwater)				0,45 mg/kg		
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	sediment (marine water)				0,045 mg/kg		
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Soil				0,22 mg/kg		
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	sewage treatment plant (STP)		67 mg/l				
Hexamethyldisiloxane 107-46-0	aqua (freshwater)		0,002 mg/l				
Hexamethyldisiloxane 107-46-0	aqua (marine water)		0 mg/l				
Hexamethyldisiloxane 107-46-0	sediment (freshwater)				8,9 mg/kg		
Hexamethyldisiloxane 107-46-0	sediment (marine water)				0,89 mg/kg		
Hexamethyldisiloxane 107-46-0	Soil				0,083 mg/kg		
Hexamethyldisiloxane 107-46-0	Sewage treatment plant		10 mg/l				
Hexamethyldisiloxane 107-46-0	Freshwater - intermittent		0,003 mg/l				
Hexamethyldisiloxane 107-46-0	oral				5,3 mg/kg		
3-Aminopropyltriethoxysilane 919-30-2	aqua (marine water)		0,05 mg/l				
3-Aminopropyltriethoxysilane 919-30-2	sediment (marine water)				0,18 mg/kg		
3-Aminopropyltriethoxysilane 919-30-2	Soil				0,069 mg/kg		
3-Aminopropyltriethoxysilane 919-30-2	sewage treatment plant (STP)		0,81 mg/l				
3-Aminopropyltriethoxysilane 919-30-2	aqua (freshwater)		0,5 mg/l				
3-Aminopropyltriethoxysilane 919-30-2	sediment (freshwater)				1,8 mg/kg		
3-Aminopropyltriethoxysilane 919-30-2	aqua (intermittent releases)		2,05 mg/l				
Trimethoxyvinylsilane 2768-02-7	aqua (freshwater)		0,4 mg/l				
Trimethoxyvinylsilane 2768-02-7	aqua (marine water)		0,04 mg/l				
Trimethoxyvinylsilane 2768-02-7	Freshwater - intermittent		1,21 mg/l				
Trimethoxyvinylsilane 2768-02-7	sediment (freshwater)				1,5 mg/kg		
Trimethoxyvinylsilane 2768-02-7	sediment (marine water)				0,15 mg/kg		
Trimethoxyvinylsilane 2768-02-7	Soil				0,06 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	oral				41 mg/kg		

556-67-2							
Octamethylcyclotetrasiloxane	Soil				0,84 mg/kg		
556-67-2							

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	inhalation	Long term exposure - systemic effects		53 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	inhalation	Acute/short term exposure - systemic effects		53 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	inhalation	Long term exposure - local effects		133 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	inhalation	Acute/short term exposure - local effects		133 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	dermal	Long term exposure - systemic effects		7,5 mg/kg	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	dermal	Acute/short term exposure - systemic effects		7,5 mg/kg	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	inhalation	Long term exposure - systemic effects		3,7 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	inhalation	Acute/short term exposure - systemic effects		3,7 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	inhalation	Long term exposure - local effects		1,7 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	inhalation	Acute/short term exposure - local effects		1,7 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	oral	Long term exposure - systemic effects		1,1 mg/kg	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	oral	Acute/short term exposure - systemic effects		1,1 mg/kg	
Hexamethyldisiloxane 107-46-0	Workers	inhalation	Acute/short term exposure - systemic effects		53,4 mg/m3	
Hexamethyldisiloxane 107-46-0	Workers	dermal	Acute/short term exposure - systemic effects		333 mg/kg	
Hexamethyldisiloxane 107-46-0	Workers	inhalation	Long term exposure - systemic effects		53,4 mg/m3	
Hexamethyldisiloxane 107-46-0	Workers	dermal	Long term exposure - systemic effects		333 mg/kg	
Hexamethyldisiloxane 107-46-0	General population	inhalation	Acute/short term exposure - systemic effects		13,3 mg/m3	
Hexamethyldisiloxane 107-46-0	General population	dermal	Acute/short term exposure - systemic effects		167 mg/kg	
Hexamethyldisiloxane 107-46-0	General population	oral	Acute/short term exposure - systemic effects		0,27 mg/kg	
Hexamethyldisiloxane 107-46-0	General population	inhalation	Long term exposure - systemic effects		13,3 mg/m3	
Hexamethyldisiloxane 107-46-0	General population	dermal	Long term exposure - systemic effects		167 mg/kg	
Hexamethyldisiloxane 107-46-0	General population	oral	Long term exposure - systemic effects		0,27 mg/kg	
3-Aminopropyltriethoxysilane 919-30-2	General population	oral	Long term exposure - systemic effects		1 mg/kg	
3-Aminopropyltriethoxysilane 919-30-2	General population	inhalation	Long term exposure -		3,5 mg/m3	

			systemic effects			
3-Aminopropyltriethoxysilane 919-30-2	General population	dermal	Long term exposure - systemic effects		1 mg/kg	
3-Aminopropyltriethoxysilane 919-30-2	Workers	inhalation	Long term exposure - systemic effects		14 mg/m3	
3-Aminopropyltriethoxysilane 919-30-2	Workers	dermal	Long term exposure - systemic effects		2 mg/kg	
Trimethoxyvinylsilane 2768-02-7	Workers	dermal	Long term exposure - systemic effects		0,91 mg/kg	
Trimethoxyvinylsilane 2768-02-7	Workers	inhalation	Long term exposure - systemic effects		27,6 mg/m3	
Trimethoxyvinylsilane 2768-02-7	General population	dermal	Long term exposure - systemic effects		0,63 mg/kg	
Trimethoxyvinylsilane 2768-02-7	General population	inhalation	Long term exposure - systemic effects		6,8 mg/m3	
Trimethoxyvinylsilane 2768-02-7	General population	oral	Long term exposure - systemic effects		0,63 mg/kg	
Trimethoxyvinylsilane 2768-02-7	Workers	inhalation	Acute/short term exposure - systemic effects		73,6 mg/m3	
Trimethoxyvinylsilane 2768-02-7	General population	inhalation	Acute/short term exposure - systemic effects		54,4 mg/m3	
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	
Octamethylcyclotetrasiloxane 556-67-2	General population	oral	Long term exposure - systemic effects		3,7 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; ≥ 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; ≥ 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:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

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

Delivery form	paste
Colour	Black
Odor	Alcohol-like
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	< -40 °C (< -40 °F)
Initial boiling point	> 100 °C (> 212 °F)
Flammability	The product is not flammable.
Explosive limits	Not applicable, The product is not flammable.
Flash point	> 100 °C (> 212 °F)
Auto-ignition temperature	Not applicable, The product is not flammable.
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).
Viscosity (kinematic) (40 °C (104 °F);)	> 20,5 mm ² /s
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Polymerises in presence of water.
Partition coefficient: n-octanol/water	Not applicable
Vapour pressure (25 °C (77 °F))	Mixture < 5 mm hg
Density (25 °C (77 °F))	1,4 g/cm ³ None
Relative vapour density: (20 °C)	> 1
Particle characteristics	Not applicable Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with oxidants, acids and lyes

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.
Excessive heat.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

None if used for intended purpose.

SECTION 11: Toxicological information

General toxicological information:

Methanol released during polymerisation of RTV silicones is toxic by inhalation. It is also highly flammable

11.1 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
Hexamethyldisilazane 999-97-3	LD50	851 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Hexamethyldisiloxane 107-46-0	LD50	> 12.000 mg/kg	rat	not specified
3-aminopropyltriethoxysilane 919-30-2	LD50	1.457 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Trimethoxyvinylsilane 2768-02-7	LD50	7.120 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
octamethylcyclotetrasiloxane 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 CAS-No.	Value type	Value	Species	Method
Hexamethyldisilazane 999-97-3	LD50	547 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Hexamethyldisiloxane 107-46-0	LD50	> 2.000 mg/kg	rat	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
3-aminopropyltriethoxysilane 919-30-2	LD50	4.076 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Trimethoxyvinylsilane 2768-02-7	LD50	3.200 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
octamethylcyclotetrasiloxane 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 CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Hexamethyldisilazane 999-97-3	Acute toxicity estimate (ATE)	10,1 mg/l	vapour			Expert judgement
Hexamethyldisiloxane 107-46-0	LC50	106 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
3-aminopropyltriethoxysilane 919-30-2	LC50	> 7,35 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Trimethoxyvinylsilane 2768-02-7	LC50	16,8 mg/l	vapour	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
octamethylcyclotetrasiloxane 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
Hexamethyldisiloxane 107-46-0	not irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
3-aminopropyltriethoxysilane 919-30-2	corrosive	1 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Trimethoxyvinylsilane 2768-02-7	not irritating		rabbit	other guideline:
octamethylcyclotetrasiloxane 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 CAS-No.	Result	Exposure time	Species	Method
Hexamethyldisiloxane 107-46-0	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
3-aminopropyltriethoxysilane 919-30-2	highly irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Trimethoxyvinylsilane 2768-02-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
octamethylcyclotetrasiloxane 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
Hexamethyldisiloxane 107-46-0	not sensitising		human	Patch Test
3-aminopropyltriethoxysilane 919-30-2	Sub-Category 1B (sensitising)	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Trimethoxyvinylsilane 2768-02-7	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
octamethylcyclotetrasiloxane 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
Hexamethyldisilazane 999-97-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Hexamethyldisilazane 999-97-3	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Hexamethyldisiloxane 107-46-0	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Hexamethyldisiloxane 107-46-0	negative	in vitro mammalian chromosome aberration test	with and without		equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Hexamethyldisiloxane 107-46-0	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
3- aminopropyltriethoxysilan e 919-30-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
3- aminopropyltriethoxysilan e 919-30-2	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
3- aminopropyltriethoxysilan e 919-30-2	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Trimethoxyvinylsilane 2768-02-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (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)
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)
Hexamethyldisiloxane 107-46-0	negative	intraperitoneal		rat	equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
3- aminopropyltriethoxysilan e 919-30-2	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Trimethoxyvinylsilane 2768-02-7	negative	intraperitoneal		mouse	other guideline:
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

No data available.

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
Hexamethyldisiloxane 107-46-0	NOAEL P >= 5000 ppm	two- generation study	inhalation: vapour	rat	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)
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)

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
Hexamethyldisiloxane 107-46-0	NOAEL 160 mg/kg	oral: gavage	28 d once daily (7d/w)	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
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)
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
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)

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 / surface water / ground water.

Self-classification according to Article 12(b) of (EU) 1272/2008.

12.1. Toxicity

Toxicity (Fish):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hexamethyldisilazane 999-97-3	LC50	88 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hexamethyldisiloxane 107-46-0	LC50	0,46 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hexamethyldisiloxane 107-46-0	NOEC	> 0,027 mg/l	90 d	Oncorhynchus mykiss	OECD Guideline 210 (fish early life stage toxicity test)
3-aminopropyltriethoxysilane 919-30-2	LC50	> 934 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Trimethoxyvinylsilane 2768-02-7	LC50	191 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)

Toxicity (aquatic invertebrates):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hexamethyldisilazane 999-97-3	EC50	80 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
3-aminopropyltriethoxysilane 919-30-2	EC50	331 mg/l	48 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)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)

Chronic toxicity (aquatic invertebrates):

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hexamethyldisiloxane 107-46-0	NOEC	0,08 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Trimethoxyvinylsilane 2768-02-7	NOEC	28,1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
octamethylcyclotetrasiloxane 556-67-2	NOEC	7.9 µg/l	21 d	Daphnia magna	EPA OTS 797.1330 (Daphnid Chronic Toxicity Test)

Toxicity (Algae):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hexamethyldisilazane 999-97-3	EC10	7,5 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
Hexamethyldisilazane 999-97-3	EC50	50 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
Hexamethyldisiloxane 107-46-0	EC50	Toxicity > Water solubility	70 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hexamethyldisiloxane 107-46-0	EC10	0,09 mg/l	70 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
3-aminopropyltriethoxysilane 919-30-2	EC50	> 1.000 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)
Trimethoxyvinylsilane 2768-02-7	EC50	> 957 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Trimethoxyvinylsilane 2768-02-7	NOEC	957 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal 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)

Toxicity (microorganisms):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hexamethyldisiloxane 107-46-0	EC50	Toxicity > Water solubility	3 h	activated sludge, domestic	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
3-aminopropyltriethoxysilane 919-30-2	EC10	13 mg/l	5 h	not specified	other guideline:
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)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	3 h	activated sludge	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Hexamethyldisilazane 999-97-3	not readily biodegradable.	no data	15,3 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Hexamethyldisiloxane 107-46-0	not readily biodegradable.	aerobic	2 %	28 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
3-aminopropyltriethoxysilane 919-30-2	not readily biodegradable.	aerobic	67 %	28 d	EU Method C.4-A (Determination of the "Ready" Biodegradability/Dissolved Organic Carbon (DOC) Die-Away Test)
Trimethoxyvinylsilane 2768-02-7	not readily biodegradable.	aerobic	51 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
octamethylcyclotetrasiloxane 556-67-2	not readily biodegradable.	aerobic	3,7 %	29 d	OECD Guideline 310 (Ready Biodegradability CO ₂ in Sealed Vessels (Headspace Test))

12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Hexamethyldisiloxane 107-46-0	776 - 2.410	70 d		Cyprinus carpio	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)
octamethylcyclotetrasiloxane 556-67-2	12.400	28 d		Pimephales promelas	EPA OTS 797.1520 (Fish Bioconcentration Test-Rainbow Trout)

12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Hexamethyldisiloxane 107-46-0	5,06	20 °C	other guideline:
octamethylcyclotetrasiloxane 556-67-2	6,98	21,7 °C	other guideline:

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
Hexamethyldisilazane 999-97-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Hexamethyldisiloxane 107-46-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
3-aminopropyltriethoxysilane 919-30-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Trimethoxyvinylsilane 2768-02-7	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.

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:

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

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09.

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number or ID 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. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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
VOC content (2010/75/EC)	< 5 %

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 vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

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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