FIREPRO®
Silicone X

Revision Date: 06/03/2023
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Previous Version: Version 1.0 May 2022

Section 1. Identification of the substance/mixture and of the company/undertaking

1.1	Product identifier	
	Product name	FIREPRO® Silicone X
1.2	Relevant identified uses of the substance or mixture and uses advised against	
	Identified uses	Used for making joints, sealing and gluing
	Uses advised against	None known
1.3	Details of the supplier of the safety data sheet	ROCKWOOL® Ltd, Pencoed, Bridgend, CF35 6NY Tel: +44 (0) 1656 862621 Email of person responsible: sds@rockwool.com
1.4	Emergency telephone numbers	ROCKWOOL® Ltd Customer Support 9am-5pm Tel: +44 (0) 1656 862621 Email: sds@rockwool.com Call 999 for emergency Call 111 for non-emergency medical advice

Section 2. Hazards identification

2.1	Classification of the substance or mixture	The product has not been classified as hazardous according to the legislation in force
	Classification according to Regulation (EC) No 1272/2008 as amended.	Not classified
2.2	Label Elements	
	Supplemental label information	EUH210: Safety data sheet available on request. EUH208: Contains (trimethoxyvinylsilane). May produce an allergic reaction

2.3 Other hazards

Physical Hazards	Reacts slowly on contact with water or humidity. In presence of water or moist air, the product hydrolyses to form hazardous substance(s). The hydrolysis rate and consequently the relevance for the hazard profile of the product is strongly dependent on the conditions of use (temperature, moisture,...).
Health Hazards	
Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Eye Contact	No specific symptoms noted.
Skin Contact	The product contains a small amount of sensitizing substance which may provoke an allergic reaction among sensitive individuals in contact with skin. A 2.5 pct calcium gluconate gel applied topically after skin has been thoroughly washed will help reduce severity of symptoms.
Ingestion	No specific symptoms noted.
Other Health Effects	No other information noted.
Environmental Hazards	No hazard identified as the maximum bioavailable concentration of Octamethylcyclotetrasiloxane (D4) is lower than the classification cut-off value (see Section 12 of this SDS).
Results of PBT and vPvB assessment	This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).
Endocrine Disruption - Health	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Endocrine Disruption - Environment	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other Hazards	No other information noted.

Substance(s) formed under the conditions of use:

Chemical Name	Concentration*	CAS-No	EC-No	Classification
Methanol	<3,5%	67-56-1	200-659-6	Flam. Liq. 2 H225; STOT SE 1 H370; Acute Tox. 3 H331; Acute Tox. 3 H311; Acute Tox. 3 H301;
Butan-1-ol	<1,5%	71-36-3	200-751-6	Flam. Liq. 3 H226; Acute Tox. 4 H302; STOT SE 3 H335; Eye Dam. 1 H318; Skin Irrit. 2 H315; STOT SE 3 H336;

*All concentrations are percent by weight unless ingredient is a gas.
Gas concentrations are in percent by volume.
The full text for all H-statements is displayed in section 16.

Section 3. Composition / information on ingredients

3.2 Mixtures

General information

Mixture of polydimethylsiloxanes, silica and curing agents

Hazardous Component(s):

Chemical name	Concentration*	Type	CAS-No.	EC No.	REACH Registration No.	Notes
Trimethoxyvinylsilane	1 - <5%	Component	2768-02-7	220-449-8	01-2119513215-52-XXXX	
Octamethylcyclotetrasiloxane; [D4]	0,25 - <2,5%	Impurities	556-67-2	209-136-7	Not relevant.	## PBT, vPvB
Decamethylcyclopentasiloxane	0,1 - <1%	Impurities	541-02-6	208-764-9	Not relevant.	## vPvB

*All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
This substance has workplace exposure limit(s).
This substance is listed as SVHC.
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.
ED: Endocrine Disruptor.

Classification:

Chemical name	Classification	Specific concentration limits / ATE / M-Factor:	Notes
Trimethoxyvinylsilane	Flam. Liq. 3 H226; Acute Tox. 4 H332; Skin Sens. 1B H317;		
Octamethylcyclotetrasiloxane; [D4]	Flam. Liq. 3 H226; Repr. 2 H361f; Aquatic Chronic 1 H410;	Aquatic Toxicity (Chronic): 10	
Decamethylcyclopentasiloxane	None known.		

The full text for all H-statements is displayed in section 16.

Section 4. First-aid measures

	General information	Move to fresh air and keep at rest. Take off contaminated clothing and wash it before reuse. Get medical attention immediately
4.1	Description of first aid measures	
	Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard. In case of inhalation: Move person into fresh air and keep at rest. Get medical attention if symptoms occur
	Skin contact	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin with soap and water. Get medical attention immediately. Contaminated clothing to be placed in closed container until disposal or decontamination. Wash contaminated clothing before reuse
	Eye contact	In the event of contact with the eyes, rinse thoroughly with clean water for at least 15 minutes. Get medical attention if symptoms occur
	Ingestion	Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if symptoms occur
	Personal Protection for First-aid Responders	First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). Refer to sections 5 and 8 for information on emergency procedures and protective equipment
4.2	Most important symptoms and effects, both acute and delayed	Any important symptoms and effects are described in Section 11 (Toxicological information) of this SDS
4.3	Indication of any immediate medical attention and special treatment needed	
	Notes to the physician	No specific recommendations. Show this Safety Data Sheet to the attending physician

Section 5. Firefighting measures

5.1	Extinguishing media	
	Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
	Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire. For further information, refer to section 10: "Stability and Reactivity".
5.2	Special hazards arising from the substance or mixture	Product will burn under fire conditions. Thermal decomposition or combustion may liberate carbon oxides, silicon oxides and other toxic gases or vapors.
5.3	Advice for fire fighters	
	Special fire fighting procedures	Use standard firefighting procedures and consider the hazards of other involved materials. Remove undamaged containers from fire area if it is safe to do so. Evacuate to a safe location and contact the emergency services. Water spray should be used to cool containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
	Special protective equipment for fire-fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Section 6. Accidental release measures

6.1	Personal precautions, protective equipment and emergency procedures	Ventilate the area. Do not breathe vapor. Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment.
6.2	Environmental precautions	Do not discharge into drains, water courses or onto the ground. Collect spillage.
6.3	Methods and materials for containment and cleaning up	Absorb with sand or other inert absorbent. Collect in containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. To clean the floor and all objects contaminated by this material, use an appropriate solvent (see § 9). Flush area with plenty of water. Incinerate in suitable combustion chamber.
6.4	Reference to other sections	Caution: Contaminated surfaces may be slippery. For waste disposal, see Section 13 of the SDS.

Section 7. Handling and storage

7.1 Precautions for safe handling

Precautions	Handle in accordance with good industrial hygiene and safety practices. No special precautions are necessary beyond normal good hygiene practices. See Section 8 of the SDS for additional personal protection advice when handling this product. Take care to prevent spills, waste and minimize release to the environment. In case of spills, beware of slippery floors and surfaces.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

7.2	Conditions for safe storage, including any incompatibilities	Store in accordance with local/regional/national regulations. Avoid discharge into drains, water courses or onto the ground. Store in a dry place. Keep in properly labelled containers. Keep above the chemical's freezing point. Protect against physical damage and/or friction. Store away from incompatible materials. For further information, refer to section 10: "Stability and Reactivity".
	Packaging frequently used at our sites	Steel drums coated with epoxy-resin.
7.3	Specific end use(s)	No specific recommendations. See the technical data sheet on this product for further information.

Section 8. Exposure controls / personal protection

8.1 Control parameters

Occupational Exposure Limits:

Octamethylcyclotetrasiloxane; [D4]

Type	Exposure Limit Values	Source	Date	Remarks
TWA	10 ppm 120 mg/m³	WEEL		

Additional exposure limits under the conditions of use:

Methanol

Type	Exposure Limit Values	Source	Date	Remarks
TWA	200 ppm 266 mg/m³	EH40 WEL	2007	
SKIN_DES	-	EH40 WEL	2007	Can be absorbed through the skin.
TWA	200 ppm 260 mg/m³	EU ELV	12 2009	Indicative
STEL	250 ppm 333 mg/m³	EH40 WEL	01 2020	
SKEN_DES	-	EU ELV	02 2017	Can be absorbed through the skin.

Butan-1-ol

Type	Exposure Limit Values	Source	Date	Remarks
SKIN_DES	-	EH40 WEL	2007	Can be absorbed through the skin.
STEL	50 ppm 154 mg/m³	EH40 WEL	01 2020	

Monitoring methods	Ensure workers' exposure monitoring in accordance with national and European regulations in force, in particular Directives 98/24/EC and 2004/37/EC.

8.2 Exposure controls

Appropriate Engineering Controls	Use engineering controls to reduce air contamination to permissible exposure level. The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Engineering controls are always preferable to personal protective equipment. Control measures to consider: Provide adequate ventilation. In case of inadequate ventilation: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.
Individual protection measures, such as personal protective equipment	Avoid inhalation of vapors/aerosols/dusts and contact with skin and eyes. Personal protective equipment should be chosen according to applicable standards, adapted to the conditions of use of the product and in discussion with the supplier of the personal protective equipment.
Eye/face protection	Safety glasses with side shields.
Hand Protection	This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes. In case this product will be mixed with other substances, you need to contact a supplier of CE approved protective gloves in order to determine the appropriate gloves. Prolonged or repeated contact: Material: Nitrile. Glove thickness: 1,25 mm Guideline: EN374-3 Additional Information: Gloves commonly used in Elkem's facilities. Short contact: Material: Nitrile / Neoprene Glove thickness: 0,198 mm Guideline: EN374-3 Additional Information: Gloves commonly used in Elkem's labs.
Skin and Body Protection	Wear appropriate clothing to prevent any possibility of skin contact. Isolate contaminated clothing and wash before reuse. In case of splashes: Wear apron or special protective clothing.
Respiratory Protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use the following CE approved air-purifying respirator: Breathing apparatus with combined filter type ABEK. Wear respiratory protection with combination filter (dust and gas filter) during operations leading to the formation of dust/aerosols.
Environmental Controls	See sections 7 and 13 of the Safety Data Sheet.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	
Physical state	Liquid
Form	Thixotropic Viscous paste
Color	White
Odor	Faint
pH	By definition, pH measurement consists in the determination of hydrogen ions concentration in solution, generally aqueous. Silicones products are hydrophobic and therefore, not soluble in water. By consequence, it is not possible to measure the pH value.
Melting point/freezing point	No data available.
Boiling Point	No data available.
Flash Point	117 °C / 243 °F (Closed cup according to method Afnor T 60103).
Flammability	No data available.
Flammability Limit - Upper (%)	No data available.
Flammability Limit - Lower (%)	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Evaporation Rate	No data available.
Density	Approximate 1,4 kg/dm3 (20 °C)
Solubility(ies)	
Solubility in Water	Practically Insoluble
Solubility (other)	Ethanol: Slightly Soluble Aliphatic hydrocarbons: Partially soluble. Aromatic hydrocarbons: Partially soluble. Chlorinated solvents: Partially soluble.
Partition coefficient (n-octanol/water)	No data available.
Self Ignition Temperature	No data available.
Decomposition Temperature	No data available.
Kinematic viscosity	No data available.
Particle characteristics	Not applicable.

9.2 Other information:

Oxidizing properties	According to the data on the components (evaluation by structure-activity relationship) Not considered as oxidizing.

Section 10. Stability and reactivity

10.1	Reactivity	Vulcanizes at room temperature on contact with moisture in the air.
10.2	Chemical stability	Stable at room temperature provided it is not in contact with air.
10.3	Possibility of hazardous reactions	During use or in contact with water, may generate hazardous substances.
10.4	Conditions to avoid	No other information noted.
10.5	Incompatible materials	Strong oxidizing agents. Water.
10.6	Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Amorphous silica. During use or in contact with water, may generate hazardous substances.

Section 11. Toxicological information

Information on likely routes of exposure

Inhalation	No data available.
Ingestion	No data available.
Skin contact	No data available.
Eye contact	No data available.

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

Acute toxicity:

Oral	Not classified for acute toxicity based on available data.
Dermal	Not classified for acute toxicity based on available data.
Inhalation	Not classified for acute toxicity based on available data.

Repeated dose toxicity:
Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

NOAEL: < 62,5 mg/kg ; LOAEL: 62,5 mg/kg ; (Rat ; Female, Male ; Gavage (Oral)) ; Method: OECD 422 ; Subacute exposure.

NOAEL: 0,0605 mg/l ; (Rat ; Female, Male ; Inhalation - vapour) ; Subchronic exposure.

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

NOAEL: 1,82 mg/l ; (Rat ; Female, Male ; Inhalation - vapour) ; Method: Similar to OECD 453 ; Chronic exposure.

NOAEL: 960 mg/kg ; (Rabbit ; Female, Male ; Dermal) ; Method: Similar to OECD 410 ; Subacute exposure.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

NOAEL: 1 000 mg/kg ; (Rat ; Female, Male ; Oral) ; Method: OECD 408 ; Subchronic exposure.

NOAEL: 2,42 mg/l ; (Rat ; Female, Male ; Inhalation - vapour) ; Method: OECD 453 ; Chronic exposure.

NOAEL: 1 600 mg/kg ; (Rat ; Female, Male ; Dermal) ; Method: OECD 410 ; Subacute exposure.

Skin Corrosion/Irritation:
Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

Not irritating (Rabbit ; 24 h) ; Method: Occluded (Dermal)

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Not irritating (Rabbit) ; Method: Similar to OECD 404

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Not irritating (Rabbit) ; Method: OECD 404

Serious Eye Damage/Eye Irritation:
Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

Not irritating (Rabbit ; 24 h) ; Method: OECD 405

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Not irritating (Rabbit) ; Method: OECD 405

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Not irritating (Rabbit) ; Method: OECD 405

Respiratory or Skin Sensitization:

Not a skin sensitizer.	Skin sensitization: No effect observed up to the highest dose tested. (Guinea Pig) ; Method: OECD 406 ; Results obtained on a similar product.

Germ Cell Mutagenicity:
In vitro: Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

Bacterial reverse mutation test: negative (Salmonella typhimurium and Escherichia coli ; with and without metabolic activation) ; Method: OECD 471
Chromosomal aberration: positive (Chinese hamster lung cells ; With metabolic activation) ; Method: OECD 473
In vitro gene mutations test on mammalian cells: negative (Chinese hamster ovary cells ; with and without metabolic activation) ; Method: OECD 476

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Bacterial reverse mutation test: No mutagenic effect. (Salmonella typhimurium ; with and without metabolic activation) ; Method: OECD 471
In vitro gene mutations test on mammalian cells: No mutagenic effect. (Mouse lymphoma cells ; with and without metabolic activation) ; Method: Similar to OECD 476
In vitro mammalian chromosomal aberration test: No clastogenic effect. (Chinese hamster ovary cells ; with and without metabolic activation) ; Method: Similar to OECD 473

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Bacterial reverse mutation test: No mutagenic components identified. (Salmonella typhimurium and Escherichia coli ; with and without metabolic activation) ; Method: OECD 471
In vitro gene mutations test on mammalian cells: No mutagenic components identified. (Mouse lymphoma cells ; with and without metabolic activation) ; Method: OECD 476
Chromosomal aberration: No clastogenic effect. (Chinese hamster lung cells ; with and without metabolic activation) ; Method: OECD 473

In vivo: Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

Mammalian erythrocyte micronucleus test: No mutagenic effect. (Mouse ; Female, Male ; Intraperitoneal) ; Method: OECD 474

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Mammalian bone marrow chromosomal aberration test: negative (Rat ; Female, Male ; Inhalation) ; Method: Similar to OECD 475

Rodent dominant Lethal test: negative (Rat ; Female, Male ; Gavage (Oral)) ; Method: Similar to OECD 478

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Mammalian erythrocyte micronucleus test: negative (Rat ; Female, Male ; Inhalation) ; Method: OECD 474

Unscheduled DNA Synthesis (UDS) Test with mammalian liver cells in vivo: negative (Rat ; Female, Male ; Inhalation) ; Method: OECD 486

Carcinogenicity:
Based on our knowledge of the composition information:

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Not classified

No effects expected. NOAEC: >= 8,492 mg/l (Rat ; Female, Male ; Inhalation - vapor) ; Method: Similar to OECD 453 ; Chronic exposure.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Not classified

NOAEC: >= 2,42 mg/l (Rat ; Female, Male ; Inhalation - vapor) ; Method: Similar to OECD 453 ; Chronic exposure. No carcinogenic effects relevant to humans.

Reproductive toxicity:
Fertility: Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

Not classified

Reproduction/developmental toxicity screening test: NOAEL (parent): 250 mg/kg ; NOAEL (F1): None. ; NOAEL (F2): None. (Rat ; female ; Gavage (Oral)) ; Method: OECD 422 ; The product is not considered to affect fertility.

Reproduction/developmental toxicity screening test: NOAEL (parent): 1 000 mg/kg NOAEL (F1): None. ; NOAEL (F2): None. (Rat ; Male ; Gavage (Oral)) ; Method: OECD 422 ; The product is not considered to affect fertility.

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Suspected of damaging fertility.

Fertility study 2 generations: NOAEL (parent): 3,64 mg/l ; NOAEL (F1): 3,64 mg/l ; NOAEL (F2): None. (Rat ; Female, Male ; Inhalation) ; Method: Similar to OECD 416 ; Effects on fertility

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Not classified

Fertility study 2 generations: NOAEL (parent): > 2,496 mg/l ; NOAEL (F1): 2,496 mg/l ; NOAEL (F2): None. (Rat ; Female, Male ; Inhalation - vapor) ; Method: OECD 416

Teratogenicity: Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

Not classified

NOAEL (terato): 0,6 mg/l ; NOAEL (mater): 0,15 mg/l (Rat ; Inhalation - vapor) ; Method: According to a standardised method. ; The product is not considered to be toxic for development.

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

NOAEL (terato): >= 8,492 mg/l ; NOAEL (mater): 3,64 mg/l (Rat ; Inhalation - vapor) ; Method: Similar to OECD 414 ; The product is not considered to be toxic for development.

NOAEL (terato): >= 6,066 mg/l ; NOAEL (mater): 3,64 mg/l (Rabbit ; Inhalation - vapor) ; Method: Similar to OECD 414 ; The product is not considered to be toxic for development.

Specific Target Organ Toxicity - Single Exposure:
Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

Based on available data, the classification criteria are not met.

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Based on available data, the classification criteria are not met.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure:
Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

Based on available data, the classification criteria are not met.

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Based on available data, the classification criteria are not met.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Based on available data, the classification criteria are not met.

Aspiration Hazard:
Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

Based on available data, the classification criteria are not met.

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Based on available data, the classification criteria are not met.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Based on available data, the classification criteria are not met.

11.2	Information on other hazards	
	Endocrine disrupting properties	No data available.

Section 12. Ecological information

General information	The maximum concentration of Octamethylcyclotetrasiloxane (D4) in the aquatic environment is estimated to be below the established no-effect threshold (<0.0079 mg/l) for aquatic organisms (based on partition coefficient, experimental data).

12.1 Toxicity

Acute toxicity:
Fish: Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

LC 50 (Oncorhynchus mykiss; 96 h) : 191 mg/l

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

LC 50 (Oncorhynchus mykiss; 96 h ; Flow through) : > 0,022 mg/l ; Method: According to a standardised method.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

LC 50 (Oncorhynchus mykiss; 96 h ; Flow through) : > 0,016 mg/l ; Method: OECD 204

NOEC (Oncorhynchus mykiss; 96 h ; Flow through) : >= 0,016 mg/l ; Method: OECD 204

Aquatic Invertebrates:
Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

EC 50 (Water flea (Daphnia magna); 48 h ; Static) : 168,7 mg/l ; Method: According to a standardised method.

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

EC 50 (Water flea (Daphnia magna); 48 h ; Flow through) : > 0,015 mg/l ; Method: According to a standardised method.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

EC 50 (Water flea (Daphnia magna); 48 h ; Flow through) : > 0,0029 mg/l ; Method: OECD 202

NOEC (Water flea (Daphnia magna); 48 h ; Flow through) : >= 0,0029 mg/l ; Method: OECD 202

Aquatic plants:
Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

EC 50 (Algae (Pseudokirchneriella subcapitata); 7 d ; Static) : 210 mg/l ; Method: According to a standardised method.

EC10 (Algae (Pseudokirchneriella subcapitata); 7 d ; Static) : 25 mg/l ; Method: According to a standardised method.

NOAEC (Algae (Pseudokirchneriella subcapitata); 7 d ; Static) : 32 mg/l ; Method: According to a standardised method.

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

ErC50 (Algae (Pseudokirchneriella subcapitata); 96 h) : > 0,022 mg/l ; Method: According to a standardised method.

ErC10 (Algae (Pseudokirchneriella subcapitata); 96 h) : >= 0,022 mg/l ; Method: According to a standardised method.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

EC 50 (Algae (Pseudokirchneriella subcapitata); 96 h ; Static) : > 0,012 mg/l ; Method: OECD 201

NOEC (Algae (Pseudokirchneriella subcapitata); 96 h ; Static) : >= 0,012 mg/l ; Method: OECD 201

Toxicity to microorganisms:
Based on our knowledge of the composition information:

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

EC 50 (3 h) : > 10 000 mg/l

Chronic Toxicity:
Fish: Based on our knowledge of the composition information:

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

NOEC (Oncorhynchus mykiss; 93 d ; Flow through) : >= 0,0044 mg/l ; Method: According to a standardised method.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

NOEC (Oncorhynchus mykiss; 90 d ; Flow through) : >= 0,014 mg/l ; Method: OECD 210

Aquatic Invertebrates:
Based on our knowledge of the composition information:

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

NOEC (Water flea (Daphnia magna); 21 d) : 0,0079 mg/l ; Method: EPA OTS 797.1330 (Daphnid Chronic Toxicity Test) ; CLH report / RAC Opinion

NOEC (Water flea (Daphnia magna); 21 d ; Flow through) : >= 0,015 mg/l ; Method: According to a standardised method.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

NOEC (Water flea (Daphnia magna); 21 d ; semi-static) : >= 0,015 mg/l ; Method: OECD 211

12.2 Persistence and Degradability

Biodegradation:
Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

51 % (activated sludge, domestic (adaptation not specified) ; 28 d ; Oxygen depletion) ; Method: OECD 301 F ; The product is not readily biodegradable.

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

3,7 % (activated sludge and sewage, soil ; 28 d) ; Method: OECD 310 ; The product is not considered to be readily biodegradable.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

0,14 % (28 d) ; The product is not readily biodegradable.

BOD/COD Ratio

No data available.

12.3	Bioaccumulative potential

Bioconcentration Factor (BCF):
Based on our knowledge of the composition information:

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Bioconcentration Factor (BCF): 14 900 (Fathead Minnow) ; Method: OECD 305 ; Not bioaccumulable based on the depuration rate constant

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Bioconcentration Factor (BCF): 16 200 (Pimephales promelas) ; Method: OECD 305 ; The product is not bioaccumulating.

Partition coefficient (n-octanol/water):
Based on our knowledge of the composition information:

TRIMETHOXYVINYLSILANE (2768-02-7):

Log Kow: -2 (20 °C) ; Method: estimated ; at pH 7, Results obtained on a similar product.

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Log Kow: 6,49 (25 °C) ; Method: OECD 123

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Log Kow: 8,02 (25,3 °C) ; Method: OECD 123

12.4	Mobility in soil	No data available.

12.5 Results of PBT and vPvB assessment

Based on our knowledge of the composition information:

OCTAMETHYLCYCLOTETRASILOXANE; [D4] (556-67-2):

Meets PBT (persistent/bioaccumulative/toxic) criteria. (REACH (1907/2006) Ax XIII)
Meets vPvB criteria (REACH (1907/2006) Ax XIII)

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Meets vPvB criteria (REACH (1907/2006) Ax XIII)

12.6	Endocrine disrupting properties	No data available.
12.7	Other adverse effects	No data available.

Section 13. Disposal considerations

13.1 Waste treatment methods:
The user's attention is drawn to the possible existence of local regulations regarding disposal.

Disposal methods	Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Incinerate.
Contaminated Packaging	Contaminated packages should be as empty as possible. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Recycle following cleaning or dispose of at an authorised site.

Section 14. Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

Section 15. Regulatory information

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

EU-Regulations

Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances:	None present or none present in regulated quantities.
Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances:	None present or none present in regulated quantities.
EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended:	None present or none present in regulated quantities.
Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended:	None present or none present in regulated quantities.
Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended:	None present or none present in regulated quantities.
Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended:	None present or none present in regulated quantities.
Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended:	None present or none present in regulated quantities.

EU. Directive 2010/75/EU on Industrial Emissions (IPPC), Annex II, L 334/17:

Chemical name	CAS-No.
octamethylcyclotetrasiloxane; [D4]	556-67-2

EU. REACH Annex XIV, Substances Subject to Authorization:	None present or none present in regulated quantities.

EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC):

Chemical name	CAS-No.	Concentration	Additional Information;
octamethylcyclotetrasiloxane; [D4]	556-67-2	0,25 - 2,5%	Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB)
Decamethylcyclopentasiloxane	541-02-6	0,1 - 1,0%	very Persistent and very Bioaccumulative (vPvB)

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:

Chemical name	CAS-No.	Entry No:	Concentration:
octamethylcyclotetrasiloxane; [D4]	556-67-2	70	0,25 - 2,5%
Decamethylcyclopentasiloxane	541-02-6	70	0,1 - 1,0%

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:

Chemical name	CAS-No.	Concentration:
trimethoxyvinylsilane	2768-02-7	1,0 - 10%
octamethylcyclotetrasiloxane; [D4]	556-67-2	0,25 - 2,5%

EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:	None present or none present in regulated quantities.
EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I:	Not applicable.

15.2	Chemical Safety Assessment	As this product is not classified as hazardous, a chemical safety assessment is not required. For safe use information, please refer to section 8 of this SDS.
	Inventory Status	
	Australia Industrial Chem. Act (AIIC)	On or in compliance with the inventory
	Canada DSL Inventory List	Not in compliance with the inventory
	Canada NDSL Inventory	Not in compliance with the inventory
	China Inv. Existing Chemical Substances	On or in compliance with the inventory
	Japan (ENCS) List	Not in compliance with the inventory
	Korea Existing Chemicals Inv. (KECI)	On or in compliance with the inventory
	New Zealand Inventory of Chemicals	On or in compliance with the inventory
	Philippines PICCS	On or in compliance with the inventory
	Taiwan Chemical Substance Inventory	On or in compliance with the inventory
	US TSCA Inventory	On or in compliance with the inventory
	EINECS, ELINCS or NLP	On or in compliance with the inventory

Section 16. Other information

Indication of changes

Section	Section Heading	Change	Comments
2	Hazards identification	2.2 Modified	Modification to label elements
2	Hazards identification	2.3 Added	Additional information on other hazards
3	Composition/information on ingredients	3.2 - Modified	Modification to information on composition/ ingredients
4	First aid measures	4.1 - Modified	Updated information on first aid measures
4	First aid measures	4.2 - Modified	Updated additional information on symptoms and effects
5	Firefighting measures	5.1 - Modified	Further information on extinguishing media
5	Firefighting measures	5.2 - Modified	Inclusion of information on thermal decomposition
5	Firefighting measures	5.3 - Modified	Modified information on firefighting protection
7	Handling and storage	7.1 - Modified	Further information on safe handling and hygiene measures
7	Handling and storage	7.2 - Added	Information on incompatible products and storage
8	Exposure controls/personal protection	8.1 - Added	Control parameters added for relevant components
8	Exposure controls/personal protection	8.2 - Modified	Amendments to requirements for personal protective equipment
9	Physical and chemical properties	9.1 - Modified	Updated information on physical and chemical properties
11	Toxicological information	11.1 - Modified	Modified toxicological information
12	Ecological information	12.1 - Modified	Modified ecological information
12	Ecological information	12.2 - Modified	Modification to information realting to persistence and degradability
12	Ecological information	12.3 - Modified	Modified information on bioaccumulative potential
12	Ecological information	12.5 - Modified	Modified information on PBT and vPvB assessment
15	Regulatory information	15.1 - Added	Additional regulatory information
15	Regulatory information	15.2 - Added	Additional information
N/A	N/A	General	Format changes throughout the SDS

Abbreviations and acronyms	
CLP	Regulation No. 1272/2008.
PBT	persistent, bioaccumulative and toxic substance.
vPvB	very persistent and very bioaccumulative substance.
NOAEL	No Observable Adverse Effect Level
LOAEL	Lowest Observable Adverse Effect Level
ED	Endocrine Disruptor
SVHC	Listed on the Candidate List of substances of very high concern (SVHC)

Wording of the H- and EUH-statements in section 2 and 3:	
EUH208	Contains <name of sensitising substance>. May produce an allergic reaction.
EUH210	Safety data sheet available on request.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful 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.
H361f	Suspected of damaging fertility.
H370	Causes damage to organs (or state all organs affected, if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
H410	Very toxic to aquatic life with long lasting effects.

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