

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

**1.1. Product identifier**

Product form : Mixture  
Trade name : FFRS

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

**1.2.1. Relevant identified uses**

Main use category : Consumer use, Professional use, Industrial use  
Use of the substance/mixture : Sealants

**1.2.2. Uses advised against**

No additional information available

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

**Manufacturer**

fischerwerke GmbH & Co. KG  
Klaus-Fischer-Straße, 1  
72178 Waldachtal  
Germany  
T +49(0)7443 12-0 - F +49(0)7443 12-4222  
[info-sdb@fischer.de](mailto:info-sdb@fischer.de) - [www.fischer.de](http://www.fischer.de)

**Distributor**

fischer fixings UK Ltd.  
Whitely Road  
Oxon OX10 9AT Wallingford  
United Kingdom of Great Britain and Northern Ireland  
T +44 14 91 82 79 00 - F +44 14 91 82 79 53  
[info@fischer.co.uk](mailto:info@fischer.co.uk) - [www.fischer.co.uk](http://www.fischer.co.uk)

**1.4. Emergency telephone number**

Emergency number : +49(0)6132-84463 (24h)

**SECTION 2: Hazards identification**

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

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not classified

**Adverse physicochemical, human health and environmental effects**

No additional information available

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

EUH-statements : EUH208 - Contains trimethoxyvinylsilane; trimethoxy(vinyl)silane. May produce an allergic reaction.  
EUH210 - Safety data sheet available on request.

**2.3. Other hazards**

Contains PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

**Component**

Decamethylcyclopentasiloxane (541-02-6)	This substance meets the PBT criteria of REACH regulation, annex XIII This substance meets the vPvB criteria of REACH regulation, annex XIII
octamethylcyclotetrasiloxane; [D4] (556-67-2)	This substance meets the PBT criteria of REACH regulation, annex XIII This substance meets the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

**Component**

octamethylcyclotetrasiloxane; [D4](556-67-2)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
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## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Component	
Decamethylcyclopentasiloxane(541-02-6)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
trimethoxyvinylsilane; trimethoxy(vinyl)silane	CAS-No.: 2768-02-7 EC-No.: 220-449-8 EC Index-No.: 014-049-00-0 REACH-no: 01-2119513215-52	1 – 5	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 (ATE=16.8 mg/l/4h) Skin Sens. 1B, H317
octamethylcyclotetrasiloxane; [D4] substance listed as REACH Candidate (Octamethylcyclotetrasiloxane) PBT substance; vPvB substance	CAS-No.: 556-67-2 EC-No.: 209-136-7 EC Index-No.: 014-018-00-1 REACH-no: 01-2119529238-36	0.1 – 2.5	Flam. Liq. 3, H226 Repr. 2, H361f Aquatic Chronic 1, H410 (M=10)
Decamethylcyclopentasiloxane substance listed as REACH Candidate PBT substance; vPvB substance	CAS-No.: 541-02-6 EC-No.: 208-764-9 REACH-no: 01-2119511367-43	0.1 – 1	Not classified

Full text of H- and EUH-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash with plenty of soap and water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell. If possible, show the doctor this safety data sheet. Failing this, show the doctor the packaging or label. Wash out mouth with water and afterwards drink plenty of water.

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

No additional information available

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide (CO <sub>2</sub> ).
Unsuitable extinguishing media	: Strong water jet.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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#### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling

: Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures

: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Avoid contact with skin, eyes and clothing. Remove dirty clothes.

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

Storage conditions

: Store in a well-ventilated place. Keep cool.

Storage temperature

: 5 – 25 °C

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

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

**Appropriate engineering controls:**

Ensure good ventilation of the work station.

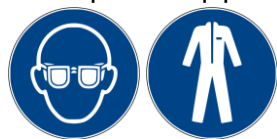
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### 8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

**Eye protection:**

Safety glasses

#### 8.2.2.2. Skin protection

**Skin and body protection:**

Wear suitable protective clothing

**Hand protection:**

No specific measures are required provided the product is handled in accordance with the general rules of occupational hygiene and safety

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR), Chloroprene rubber (CR), Butyl rubber	3 (> 60 minutes)	-		

#### 8.2.2.3. Respiratory protection

**Respiratory protection:**

No respiratory protection needed under normal use conditions. In case of insufficient ventilation, wear suitable respiratory equipment

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

**Environmental exposure controls:**

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: white.
Appearance	: Paste.
Odour	: slight.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 117 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: > 21 mm <sup>2</sup> /s
Solubility	: Water: practically insoluble Ethanol: sparingly soluble Acetone: Partially soluble
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1.4 g/ml
Relative density	: Not available
Relative vapour density at 20°C	: Not available

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Particle characteristics : Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

#### trimethoxyvinylsilane; trimethoxy(vinyl)silane (2768-02-7)

LD50 oral rat	7120 mg/kg (OECD 401 method)
LD50 dermal rabbit	3760 mg/kg
LC50 Inhalation - Rat	16.8 mg/l (OECD 403 method)

#### Decamethylcyclopentasiloxane (541-02-6)

LD50 oral rat	> 5000 mg/kg bodyweight (OECD 401 method)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (OECD 402 method)
LC50 Inhalation - Rat	8.67 mg/l air (OECD 403 method)

#### octamethylcyclotetrasiloxane; [D4] (556-67-2)

LD50 oral rat	≈ 4800 mg/kg bodyweight (OECD 401 method)
LD50 dermal rat	> 17700 mg/kg
LC50 Inhalation - Rat	36 mg/l (OECD 403 method)
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified. ((OECD 406 method). No sensitisation responses were observed)
Additional information	: May cause sensitisation of susceptible persons
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

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STOT-repeated exposure : Not classified

### Decamethylcyclopentasiloxane (541-02-6)

NOAEL (oral, rat, 90 days) ≥ 1000 mg/kg bodyweight

NOAEL (dermal, rat/rabbit, 90 days) ≥ 1600 mg/kg bodyweight

Aspiration hazard : Not classified

### FFRS

Viscosity, kinematic > 21 mm<sup>2</sup>/s

### trimethoxyvinylsilane; trimethoxy(vinyl)silane (2768-02-7)

Viscosity, kinematic 0.7 mm<sup>2</sup>/s

### Decamethylcyclopentasiloxane (541-02-6)

Viscosity, kinematic 3.7 mm<sup>2</sup>/s Temp.: 'other.' Parameter: 'kinematic viscosity (in mm<sup>2</sup>/s)'

### octamethylcyclotetrasiloxane; [D4] (556-67-2)

Viscosity, kinematic 1.6 mm<sup>2</sup>/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm<sup>2</sup>/s)'

## 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified.

Not rapidly degradable

### trimethoxyvinylsilane; trimethoxy(vinyl)silane (2768-02-7)

LC50 - Fish [1] > 92.2 mg/l *Oryzias latipes* (Ricefish)

EC50 - Crustacea [1] 168.7 mg/l *Daphnia magna* (Water flea)

EC50 72h - Algae [1] > 957 mg/l *Desmodesmus subspicatus*

LOEC (chronic) 52.4 mg/l

NOEC (chronic) 28.1 mg/l

### Decamethylcyclopentasiloxane (541-02-6)

LC50 - Fish [1] > 16 µg/l *Oncorhynchus mykiss* (Rainbow trout)

EC50 - Crustacea [1] > 2.9 µg/l *Daphnia magna* (Water flea)

### octamethylcyclotetrasiloxane; [D4] (556-67-2)

LC50 - Fish [1] > 22 µg/l *Oncorhynchus mykiss* (Rainbow trout)

EC50 - Crustacea [1] > 15 µg/l *Daphnia magna* (Water flea)

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

### Decamethylcyclopentasiloxane (541-02-6)

Partition coefficient n-octanol/water (Log Pow) 5.2

### 12.4. Mobility in soil

### Decamethylcyclopentasiloxane (541-02-6)

Mobility in soil 16000

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### 12.5. Results of PBT and vPvB assessment

Component	
Decamethylcyclopentasiloxane (541-02-6)	This substance meets the PBT criteria of REACH regulation, annex XIII This substance meets the vPvB criteria of REACH regulation, annex XIII
octamethylcyclotetrasiloxane; [D4] (556-67-2)	This substance meets the PBT criteria of REACH regulation, annex XIII This substance meets the vPvB criteria of REACH regulation, annex XIII

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Avoid release to the environment.
European List of Waste (LoW) code	: 20 00 00 - MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA		
<b>14.1. UN number or ID number</b>				
Not regulated for transport				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated		
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated		
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated		
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated		
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

### 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****15.1.1. EU-Regulations****REACH Annex XVII (Restriction List)**

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

**REACH Annex XIV (Authorisation List)**

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

**REACH Candidate List (SVHC)**

Contains substance(s) listed on the REACH Candidate List in concentrations  $\geq 0.1\%$  or SCL: Decamethylcyclopentasiloxane (EC 208-764-9, CAS 541-02-6), octamethylcyclotetrasiloxane; [D4] (EC 209-136-7, CAS 556-67-2)

**PIC Regulation (Prior Informed Consent)**

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

**POP Regulation (Persistent Organic Pollutants)**

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

**Ozone Regulation (1005/2009)**

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

**Explosives Precursors Regulation (2019/1148)**

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

**Drug Precursors Regulation (273/2004)**

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

**15.1.2. National regulations**

No additional information available

**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

**SECTION 16: Other information**

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration



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Abbreviations and acronyms:	
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
EUH208	Contains trimethoxyvinylsilane; trimethoxy(vinyl)silane. May produce an allergic reaction.
EUH210	Safety data sheet available on request.
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H361f	Suspected of damaging fertility.
H410	Very toxic to aquatic life with long lasting effects.
Repr. 2	Reproductive toxicity, Category 2
Skin Sens. 1B	Skin sensitisation, category 1B

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.