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

Product identifier
Commercial Product Name: FFRS Fire Rated Silicone

Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Sealant
Recommended restrictions: None under normal processing.

Details of the supplier of the product safety information
Company designation: fischerwerke GmbH & Co. KG
Klaus–Fischer–Straße 1
D–72178 Waldachtal
Telephone: +49(0)7443 12-0
FAX: +49(0)7443 12-4222
Email: info-sdb@fischer.de

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

2. Hazards identification

Classification of the substance or mixture
Classification according to Directive 67/548/EEC / 1999/45/EEC
This product is not classified as dangerous according to 67/548/EEC / 1999/45/EEC.

Classification according to Regulation (EC) No. 1272/2008
This product is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].

Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
The product does not have to be labelled according to Regulation (EC) No. 1272/2008 [CLP].

3. Composition/information on ingredients

Hazardous ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Classification (EEC) No 67/548</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>trimethoxyvinylsilane</td>
<td>R10 Xn; R20</td>
<td>2.5 – 10.0 % by weight</td>
</tr>
<tr>
<td>CAS No.: 2768–02–7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC-No.: 220–449–8</td>
<td>Flam. Liq. 3; H226 Acute Tox. 4; H332</td>
<td></td>
</tr>
<tr>
<td>bis(ethyl acetoacetoato-O1’,O3)bis(2–methylpropan–1–olato)titanium</td>
<td>R10 Xi; R36/38</td>
<td>2.5 – 10.0 % by weight</td>
</tr>
<tr>
<td>CAS No.: 83877–91–2</td>
<td></td>
<td>This substance is classified as not hazardous according to regulation (EC) No. 1272/2008 [CLP].</td>
</tr>
<tr>
<td>EC-No.: 281–161–6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. First aid measures

Description of first aid measures

General advice
If symptoms persist, call a physician.
Remove/Take off immediately all contaminated clothing.

If inhaled
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

In case of skin contact
IF ON SKIN: Gently wash with plenty of soap and water.

In case of eye contact
In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If swallowed
If swallowed, seek medical advice immediately and show this container or label.
Clean mouth with water and drink afterwards plenty of water. Drink 1 or 2 glasses of water.
Do NOT induce vomiting.

4. Indication of any immediate medical attention and special treatment needed

Immediate medical attention
No data available

Special medical treatment
No data available

5. Firefighting measures

Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO2)
Dry powder
Foam
Water spray jet

Extinguishing media which must not be used for safety reasons
High volume water jet

Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases
Heating or fire can release toxic gas.
**Advice for firefighters**

Special protective equipment for firefighting
- In the event of fire, wear self-contained breathing apparatus.
- In the event of fire and/or explosion do not breathe fumes.

Additional information on firefighting
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Keep containers and surroundings cool with water spray. Container may rupture on heating.

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**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
- Ensure adequate ventilation, especially in confined areas.
- Keep people away from and upwind of spill/leak.

**Environmental precautions**
- The product should not be allowed to enter drains, water courses or the soil.
- Prevent spreading over a wide area (e.g. by containment or oil barriers).

**Methods and material for containment and cleaning up**

**Methods for cleaning up**
- Use mechanical handling equipment.
- Treat recovered material as described in the section "Disposal considerations".

**Reference to other sections**

**Reference to other sections**
- See chapter 8/13

**Additional information**

**Other information**
- Dispose of in accordance with local regulations.

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**7. Handling and storage**

**Precautions for safe handling**

**Advice on safe handling**
- None under normal processing.

**Advice on protection against fire and explosion**
- No special precautions required.

**Conditions for safe storage, including any incompatibilities**

**Storage space and container requirements**
- Keep containers tightly closed in a cool, well-ventilated place.
- Store in accordance with local regulations.
- Keep only in original container.

**Hints on storage assembly**
- Store in accordance with the particular national regulations.

**German storage class**
- 10–13 (TRGS 510)
Specific end use(s)
Specific use(s)  Sealant

8. Exposure controls/personal protection

Control parameters

**METHANOL**
Great Britain

<table>
<thead>
<tr>
<th>Long-term exposure value / ppm</th>
<th>Long-term exposure value / mg/m³</th>
<th>Short-term exposure value / ppm</th>
<th>Short-term exposure value / mg/m³</th>
<th>Remarks</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>266</td>
<td>250</td>
<td>333</td>
<td>Can be absorbed through the skin.</td>
<td>19</td>
</tr>
</tbody>
</table>


Europe

<table>
<thead>
<tr>
<th>Long-term exposure value / mg/m³</th>
<th>Long-term exposure value / ppm</th>
<th>Note</th>
<th>Issuing date</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>260</td>
<td>200</td>
<td>Skin</td>
<td>2006/15</td>
<td>24</td>
</tr>
</tbody>
</table>

Source: 24 – DIRECTIVE 2009/161/EU

Exposure controls

Respiratory protection  No personal respiratory protective equipment normally required.
Hand protection  not required under normal use
Suitable material:  butyl-rubber, Chloroprene, Nitrile rubber
Unsuitable material:  PVC disposable gloves
Material thickness:  adjust to application and duration of use
Break through time:  adjust to application and duration of use
Remarks:  Replace when worn. Request information on glove permeation properties from the glove supplier. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).

Eye protection  Tightly fitting safety goggles
Skin and body protection  Wear suitable protective equipment.
Note:  Choose body protection according to the amount and concentration of the dangerous substance at the work place.

General protective and hygiene measures  Smoking, eating and drinking should be prohibited in the application area.
Avoid contact with skin, eyes and clothing.
Take off all contaminated clothing immediately. Wash hands before breaks and at the end of workday. Keep away from food, drink and animal feedingstuffs. Use protective skin cream before handling the product.

Information on environmental protection regulations
No special environmental precautions required.

9. Physical and chemical properties

Information on basic physical and chemical properties
Form: paste
Colour: various
Additional information on colour: Take care of instructions on label.
Boiling point [°C] > 100
Flash point [°C] > 93
Relative density 1,3
Water solubility [g/l] insoluble

10. Stability and reactivity

Reactivity
Thermal decomposition No decomposition if stored and applied as directed.

Chemical stability
Chemical stability Stable under recommended storage conditions.

Possibility of hazardous reactions
Hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid
Conditions to avoid No decomposition if used as directed.

Incompatible materials
Materials to avoid None known.

Hazardous decomposition products
Hazardous decomposition products No decomposition if used as directed.
11. Toxicological information

Additional information
Other information (chapter 11.) There is no data available for this product.

12. Ecological information

Toxicity
Aquatic toxicity [mg/l] There are no data available on the mixture itself.

Persistence and degradability
Biodegradability
Remarks: No data available

Bioaccumulative potential
Bioaccumulation no data available

Mobility in soil
Mobility
Mobility: No data available

Results of PBT and vPvB assessment
Results of PBT characteristics This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

determination

Other adverse effects
Further information on ecology No information on ecology is available.

13. Disposal considerations

Waste treatment methods
Disposal considerations Dispose of waste according to applicable legislation. The product should not be allowed to enter drains, water courses or the soil.

Waste Code The following Waste Codes are only suggestions:
200000 – MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

Uncleaned empty packaging Dispose of as unused product.
14. Transport information

<table>
<thead>
<tr>
<th>14.1 UN-No</th>
<th>Land transport ADR/RID</th>
<th>Marine transport IMDG</th>
<th>Air transport ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>14.2 Description of the goods</td>
<td>Non-dangerous goods</td>
<td>Non-dangerous goods</td>
<td>Non-dangerous goods</td>
</tr>
<tr>
<td>14.2 UN proper shipping name</td>
<td>Non dangerous good</td>
<td>Non dangerous good</td>
<td>Non dangerous good</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>14.4 Packaging group</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Proper shipping name</td>
<td>Non dangerous good</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Special precautions for user

Precautions

not required under normal use

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

Additional information

Other information (chapter 14.)

Not dangerous goods in the meaning of ADR/RID, ADNR, IMDG–Code, ICAO/IATA–DGR

15. Regulatory information

Chemical safety assessment

Safety assessment

Not relevant. Chemical safety assessments for substances in this mixture were not carried out.

16. Other information

Relevant R-phrases

R10: Flammable.
R11: Highly flammable.
R20: Harmful by inhalation.
R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.
R36/38: Irritating to eyes and skin.
R39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Relevant H-phrases

H225: Highly flammable liquid and vapour.
H226: Flammable liquid and vapour.
H301: Toxic if swallowed.
H311: Toxic in contact with skin.
H331: Toxic if inhaled.
H332: Harmful if inhaled.
H370: Causes damage to organs.

Wording of the hazard classes
- Flam. Liq.: Flammable liquid
- Acute Tox.: Acute toxicity
- STOT SE: Specific target organ toxicity – single exposure

Recommended restrictions
None under normal processing.

This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features or qualities.