

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

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LOCTITE SI 5367 WH CR310ML EGF

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

#### 1.1. Product identifier

LOCTITE SI 5367 WH CR310ML EGF

### 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 Fax-no.: +44 (1442) 278071

ua-productsafety.uk@henkel.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):

Skin irritation

Category 2

Category 2

H315 Causes skin irritation.

H319 Causes serious eye irritation.

2.2. Label elements

Serious eye irritation

# Label elements (CLP):

# Hazard pictogram:



Signal word: Warning

Hazard statement: H315 Causes skin irritation.
H319 Causes serious eye irritation.

**Precautionary statement:** P302+P352 IF ON SKIN: Wash with plenty of soap and water. **P337+P313** If eye irritation persists: Get medical advice/attention.

#### 2.3. Other hazards

None if used properly.

Evolves acetic acid during cure.

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

# **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

### General chemical description:

Acetoxy curing silicone

### Declaration of the ingredients according to CLP (EC) No 1272/2008:

| Hazardous components<br>CAS-No.               | EC Number<br>REACH-Reg No.                        | content   | Classification  |
|---|---|-----------|---|
| CAS-No. Octamethylcyclotetrasiloxane 556-67-2 | REACH-Reg No.<br>209-136-7<br>01-2119529238-36    | 1-< 3 %   | Flam. Liq. 3 H226 Repr. 2 H361f Aquatic Chronic 4 H413 ===== EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC) |
| Methyltriacetoxysilane<br>4253-34-3           | 224-221-9<br>01-2119962266-32<br>01-2119987097-22 | 1-< 3 %   | Acute Tox. 4; Oral<br>H302<br>Skin Corr. 1C<br>H314<br>Eye Dam. 1<br>H318   |
| Decamethylcyclopentasiloxane<br>541-02-6      | 208-764-9<br>01-2119511367-43                     | 0,1-< 1 % | Aquatic Chronic 4  H413  =====  EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC)                              |
| Dodecamethylcyclohexasiloxane<br>540-97-6     | 208-762-8<br>01-2119517435-42                     | 0,1-< 1 % | Aquatic Chronic 4  H413 =====  EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC)                               |

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:

IF ON SKIN: Wash with plenty of soap and water.

Seek medical advice.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:

Do not induce vomiting.

Seek medical advice.

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

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

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

See section: Description of first aid measures

# **SECTION 5: Firefighting measures**

# **5.1.** Extinguishing media Suitable extinguishing media:

Carbon dioxide, foam, powder

Fine water spray

### Extinguishing media which must not be used for safety reasons:

None known

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

Do not expose to direct heat.

carbon oxides.

Silica fume

Formaldehyde

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus.

### 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.

Ensure adequate ventilation.

Wear protective equipment.

### 6.2. Environmental precautions

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

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

Scrape up as much material as possible.

Ensure adequate ventilation.

Store in a partly filled, closed container until disposal.

Dispose of contaminated material as waste according to Section 13.

#### 6.4. Reference to other sections

See advice in section 8

### **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Vapours should be extracted to avoid inhalation. Ensure that workrooms are adequately ventilated. Avoid skin and eye contact. See advice in section 8

### Hygiene measures:

Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working. Good industrial hygiene practices should be observed.

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

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 <sup>3</sup> | Value type                           | Short term exposure limit category / Remarks | Regulatory list |
|---|-----|-------------------|--------------------------------------|--|-----------------|
| Acetic acid<br>64-19-7<br>[ACETIC ACID] | 10  | 25                | Time Weighted Average (TWA):         | Indicative                                   | ECTLV           |
| Acetic acid<br>64-19-7<br>[ACETIC ACID] | 20  | 50                | Short Term Exposure<br>Limit (STEL): | Indicative                                   | ECTLV           |
| Acetic acid<br>64-19-7<br>[ACETIC ACID] | 20  | 50                | Short Term Exposure<br>Limit (STEL): |  | EH40 WEL        |
| Acetic acid<br>64-19-7<br>[ACETIC ACID] | 10  | 25                | Time Weighted Average (TWA):         |  | EH40 WEL        |

# **Occupational Exposure Limits**

Valid for

Ireland

| Ingredient [Regulated substance]        | ppm | mg/m <sup>3</sup> | Value type                           | Short term exposure limit category / Remarks | Regulatory list |
|---|-----|-------------------|--------------------------------------|--|-----------------|
| Acetic acid<br>64-19-7<br>[ACETIC ACID] | 10  | 25                | Time Weighted Average (TWA):         | Indicative OELV                              | IR_OEL          |
| Acetic acid<br>64-19-7<br>[ACETIC ACID] | 10  | 25                | Time Weighted Average (TWA):         | Indicative                                   | ECTLV           |
| Acetic acid<br>64-19-7<br>[ACETIC ACID] | 20  | 50                | Short Term Exposure<br>Limit (STEL): | Indicative                                   | ECTLV           |
| Acetic acid<br>64-19-7<br>[ACETIC ACID] | 20  | 50                | Short Term Exposure<br>Limit (STEL): | 15 minutes<br>Indicative OELV                | IR_OEL          |

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

| Name on list                              | Environmental<br>Compartment   | Exposure period | Value           | Value |            |        | Remarks |
|---|--|-----------------|-----------------|-------|------------|--------|---------|
|   | The second secon |                 | mg/l            | ppm   | mg/kg      | others |         |
| Octamethylcyclotetrasiloxane              | aqua   |                 | 0,0015          |       |            |        |         |
| 556-67-2                                  | (freshwater)   | 1               | mg/l            |       |            |        |         |
| Octamethylcyclotetrasiloxane 556-67-2     | aqua (marine water)  |                 | 0,00015<br>mg/l |       |            |        |         |
| Octamethylcyclotetrasiloxane              | sewage   |                 | 10 mg/l         |       |            |        |         |
| 556-67-2                                  | treatment plant (STP)  |                 |                 |       |            |        |         |
| Octamethylcyclotetrasiloxane 556-67-2     | sediment<br>(freshwater)   |                 |                 |       | 3 mg/kg    |        |         |
| Octamethylcyclotetrasiloxane 556-67-2     | sediment<br>(marine water)   |                 |                 |       | 0,3 mg/kg  |        |         |
| Octamethylcyclotetrasiloxane 556-67-2     | oral   |                 |                 |       | 41 mg/kg   |        |         |
| Octamethylcyclotetrasiloxane 556-67-2     | Soil   |                 |                 |       | 0,54 mg/kg |        |         |
| Methylsilanetriyl triacetate 4253-34-3    | aqua<br>(freshwater)   |                 | 1,0 mg/l        |       |            |        |         |
| Methylsilanetriyl triacetate 4253-34-3    | aqua (marine<br>water)   |                 | 0,1 mg/l        |       |            |        |         |
| Methylsilanetriyl triacetate 4253-34-3    | aqua<br>(intermittent  |                 | 10 mg/l         |       |            |        |         |
|   | releases)  |                 |                 |       |            |        |         |
| Methylsilanetriyl triacetate 4253-34-3    | sediment<br>(freshwater)   |                 |                 |       | 0,80 mg/kg |        |         |
| Methylsilanetriyl triacetate 4253-34-3    | sediment<br>(marine water)   |                 |                 |       | 0,08 mg/kg |        |         |
| Methylsilanetriyl triacetate 4253-34-3    | Soil   |                 |                 |       | 0,13 mg/kg |        |         |
| Methylsilanetriyl triacetate<br>4253-34-3 | sewage<br>treatment plant<br>(STP)   |                 | > 10 mg/l       |       |            |        |         |
| Decamethylcyclopentasiloxane 541-02-6     | aqua<br>(freshwater)   |                 | 0,0012<br>mg/l  |       |            |        |         |
| Decamethylcyclopentasiloxane 541-02-6     | aqua (marine<br>water)   |                 | 0,00012<br>mg/l |       |            |        |         |
| Decamethylcyclopentasiloxane 541-02-6     | sewage<br>treatment plant<br>(STP)   |                 | 10 mg/l         |       |            |        |         |
| Decamethylcyclopentasiloxane 541-02-6     | sediment<br>(freshwater)   |                 |                 |       | 11 mg/kg   |        |         |
| Decamethylcyclopentasiloxane 541-02-6     | Soil   |                 |                 |       | 1,27 mg/kg |        |         |
| Decamethylcyclopentasiloxane 541-02-6     | oral   |                 |                 |       | 16 mg/kg   |        |         |
| Decamethylcyclopentasiloxane 541-02-6     | sediment<br>(marine water)   |                 |                 |       | 1,1 mg/kg  |        |         |
| Dodecamethylcyclohexasiloxane<br>540-97-6 | sewage<br>treatment plant<br>(STP)   |                 | 1 mg/l          |       |            |        |         |
| Dodecamethylcyclohexasiloxane 540-97-6    | sediment<br>(freshwater)   |                 |                 |       | 13 mg/kg   |        |         |
| Dodecamethylcyclohexasiloxane 540-97-6    | Soil   |                 |                 |       | 3,77 mg/kg |        |         |
| Dodecamethylcyclohexasiloxane<br>540-97-6 | oral   |                 |                 |       | 66,7 mg/kg |        |         |
| Dodecamethylcyclohexasiloxane<br>540-97-6 | sediment<br>(marine water)   |                 |                 |       | 1,3 mg/kg  |        |         |

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

| Name on list                              | Application<br>Area | Route of<br>Exposure | Health Effect                                      | Exposure<br>Time | Value      | Remarks |
|---|---------------------|----------------------|--|------------------|------------|---------|
| Octamethylcyclotetrasiloxane 556-67-2     | Workers             | inhalation           | Long term<br>exposure -<br>systemic effects        |                  | 73 mg/m3   |         |
| Octamethylcyclotetrasiloxane 556-67-2     | Workers             | inhalation           | Long term<br>exposure - local<br>effects           |                  | 73 mg/m3   |         |
| Octamethylcyclotetrasiloxane 556-67-2     | General population  | inhalation           | Long term<br>exposure -<br>systemic effects        |                  | 13 mg/m3   |         |
| Octamethylcyclotetrasiloxane<br>556-67-2  | General population  | inhalation           | Long term<br>exposure - local<br>effects           |                  | 13 mg/m3   |         |
| Octamethylcyclotetrasiloxane<br>556-67-2  | General population  | oral                 | Long term<br>exposure -<br>systemic effects        |                  | 3,7 mg/kg  |         |
| Methylsilanetriyl triacetate<br>4253-34-3 | Workers             | inhalation           | Long term<br>exposure -<br>systemic effects        |                  | 25 mg/m3   |         |
| Methylsilanetriyl triacetate<br>4253-34-3 | Workers             | inhalation           | Acute/short term<br>exposure -<br>systemic effects |                  | 25 mg/m3   |         |
| Methylsilanetriyl triacetate<br>4253-34-3 | Workers             | dermal               | Long term<br>exposure -<br>systemic effects        |                  | 14,5 mg/kg |         |
| Methylsilanetriyl triacetate<br>4253-34-3 | Workers             | dermal               | Acute/short term<br>exposure -<br>systemic effects |                  | 14,5 mg/kg |         |
| Methylsilanetriyl triacetate<br>4253-34-3 | General population  | inhalation           | Long term<br>exposure - local<br>effects           |                  | 5,1 mg/m3  |         |
| Methylsilanetriyl triacetate<br>4253-34-3 | General population  | inhalation           | Acute/short term<br>exposure - local<br>effects    |                  | 5,1 mg/m3  |         |
| Methylsilanetriyl triacetate<br>4253-34-3 | General population  | dermal               | Long term<br>exposure -<br>systemic effects        |                  | 7,2 mg/kg  |         |
| Methylsilanetriyl triacetate 4253-34-3    | General population  | dermal               | Acute/short term<br>exposure -<br>systemic effects |                  | 7,2 mg/kg  |         |
| Methylsilanetriyl triacetate<br>4253-34-3 | General population  | oral                 | Long term<br>exposure -<br>systemic effects        |                  | 1 mg/kg    |         |
| Methylsilanetriyl triacetate 4253-34-3    | General population  | oral                 | Acute/short term<br>exposure -<br>systemic effects |                  | 1 mg/kg    |         |
| Decamethylcyclopentasiloxane 541-02-6     | Workers             | inhalation           | Acute/short term<br>exposure -<br>systemic effects |                  | 97,3 mg/m3 |         |
| Decamethylcyclopentasiloxane<br>541-02-6  | Workers             | inhalation           | Acute/short term<br>exposure - local<br>effects    |                  | 24,2 mg/m3 |         |
| Decamethylcyclopentasiloxane<br>541-02-6  | Workers             | inhalation           | Long term<br>exposure -<br>systemic effects        |                  | 97,3 mg/m3 |         |
| Decamethylcyclopentasiloxane<br>541-02-6  | Workers             | inhalation           | Long term<br>exposure - local<br>effects           |                  | 24,2 mg/m3 |         |
| Decamethylcyclopentasiloxane 541-02-6     | General population  | inhalation           | Acute/short term<br>exposure -<br>systemic effects |                  | 17,3 mg/m3 |         |
| Decamethylcyclopentasiloxane 541-02-6     | General population  | inhalation           | Acute/short term<br>exposure - local<br>effects    |                  | 4,3 mg/m3  |         |
| Decamethylcyclopentasiloxane 541-02-6     | General population  | oral                 | Long term<br>exposure -<br>systemic effects        |                  | 5 mg/kg    |         |
| Decamethylcyclopentasiloxane 541-02-6     | General population  | inhalation           | Long term<br>exposure -<br>systemic effects        |                  | 17,3 mg/m3 |         |
| Decamethylcyclopentasiloxane<br>541-02-6  | General population  | inhalation           | Long term<br>exposure - local                      |                  | 4,3 mg/m3  |         |

|   |                       |            | effects                                      |            |  |
|---|-----------------------|------------|--|------------|--|
| Decamethylcyclopentasiloxane 541-02-6     | General<br>population | oral       | Acute/short term exposure - systemic effects | 5 mg/kg    |  |
| Dodecamethylcyclohexasiloxane 540-97-6    | Workers               | inhalation | Long term<br>exposure -<br>systemic effects  | 11 mg/m3   |  |
| Dodecamethylcyclohexasiloxane 540-97-6    | Workers               | inhalation | Long term<br>exposure - local<br>effects     | 1,22 mg/m3 |  |
| Dodecamethylcyclohexasiloxane 540-97-6    | Workers               | inhalation | Acute/short term exposure - local effects    | 6,1 mg/m3  |  |
| Dodecamethylcyclohexasiloxane 540-97-6    | General<br>population | inhalation | Long term<br>exposure -<br>systemic effects  | 2,7 mg/m3  |  |
| Dodecamethylcyclohexasiloxane<br>540-97-6 | General<br>population | inhalation | Long term<br>exposure - local<br>effects     | 0,3 mg/m3  |  |
| Dodecamethylcyclohexasiloxane 540-97-6    | General<br>population | inhalation | Acute/short term exposure - local effects    | 1,5 mg/m3  |  |
| Dodecamethylcyclohexasiloxane<br>540-97-6 | General<br>population | oral       | Long term<br>exposure -<br>systemic effects  | 1,7 mg/kg  |  |
| Dodecamethylcyclohexasiloxane 540-97-6    | General<br>population | oral       | Acute/short term exposure - systemic effects | 1,7 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)

This recommendation should be matched to local conditions.

### 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:

Wear protective glasses.

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

Appearance paste white
Odor Acetic acid

Odour threshold No data available / Not applicable

pH Not applicable

Melting point No data available / Not applicable Solidification temperature No data available / Not applicable

Initial boiling point Not determined Flash point  $> 150 \, ^{\circ}\text{C} \ (> 302 \, ^{\circ}\text{F})$ 

Evaporation rate

No data available / Not applicable
Flammability

No data available / Not applicable
Explosive limits

No data available / Not applicable

Vapour pressure < 0,1 mm hg

Relative vapour density: No data available / Not applicable

Density 1,04 g/cm<sup>3</sup>

()

Bulk density No data available / Not applicable Solubility No data available / Not applicable

Solubility (qualitative) Partially soluble

(Solvent: Water)

Solubility (qualitative) Insoluble

(Solvent: Acetone)

Partition coefficient: n-octanol/water

Auto-ignition temperature

Decomposition temperature

Viscosity

No data available / Not applicable
Viscosity (kinematic)

Explosive properties

No data available / Not applicable
Oxidising properties

No data available / Not applicable
No data available / Not applicable

### 9.2. Other information

No data available / Not applicable

### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Strong oxidizing agents.

Polymerises in presence of water.

### 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.

#### 10.5. Incompatible materials

See section reactivity.

### 10.6. Hazardous decomposition products

Evolves acetic acid during cure.

At higher temperatures (>150C) may release formaldehyde (traces).

# **SECTION 11: Toxicological information**

# General toxicological information:

Acetic acid is liberated slowly upon contact with moisture.

Acetic acid released during polymerisation of acetoxy curing RTV silicones is irritating to the eyes

# 11.1. Information on toxicological effects

### Acute oral toxicity:

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

| Hazardous substances      | Value | Value         | Species | Method  |
|---------------------------|-------|---------------|---------|---|
| CAS-No.                   | type  |               |         |   |
| Octamethylcyclotetrasilox | LD50  | > 4.800 mg/kg | rat     | equivalent or similar to OECD Guideline 401 (Acute Oral |
| ane                       |       |               |         | Toxicity)   |
| 556-67-2                  |       |               |         |   |
| Methyltriacetoxysilane    | LD50  | 1.600 mg/kg   | rat     | OECD Guideline 401 (Acute Oral Toxicity)                |
| 4253-34-3                 |       |               |         |   |
| Decamethylcyclopentasilo  | LD50  | > 5.000 mg/kg | rat     | equivalent or similar to OECD Guideline 401 (Acute Oral |
| xane                      |       |               |         | Toxicity)   |
| 541-02-6                  |       |               |         |   |
| Dodecamethylcyclohexasi   | LD50  | > 2.000 mg/kg | rat     | OECD Guideline 423 (Acute Oral toxicity)                |
| loxane                    |       |               |         |   |
| 540-97-6                  |       |               |         |   |

### Acute dermal toxicity:

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

| Hazardous substances      | Value | Value         | Species | Method   |
|---------------------------|-------|---------------|---------|--|
| CAS-No.                   | type  |               |         |  |
| Octamethylcyclotetrasilox | LD50  | > 2.375 mg/kg | rat     | equivalent or similar to OECD Guideline 402 (Acute |
| ane                       |       |               |         | Dermal Toxicity)                                   |
| 556-67-2                  |       |               |         |  |
| Decamethylcyclopentasilo  | LD50  | > 2.000 mg/kg | rabbit  | equivalent or similar to OECD Guideline 402 (Acute |
| xane                      |       |               |         | Dermal Toxicity)                                   |
| 541-02-6                  |       |               |         |  |
| Dodecamethylcyclohexasi   | LD50  | > 2.000 mg/kg | rat     | OECD Guideline 402 (Acute Dermal Toxicity)         |
| loxane                    |       |               |         | ·  |
| 540-97-6                  |       |               |         |  |

# Acute inhalative toxicity:

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

| Hazardous substances      | Value | Value     | Test atmosphere | Exposure | Species | Method                    |
|---------------------------|-------|-----------|-----------------|----------|---------|---------------------------|
| CAS-No.                   | type  |           |                 | time     |         |                           |
| Octamethylcyclotetrasilox | LC50  | 36 mg/l   | dust/mist       | 4 h      | rat     | OECD Guideline 403 (Acute |
| ane                       |       |           |                 |          |         | Inhalation Toxicity)      |
| 556-67-2                  |       |           |                 |          |         | -                         |
| Decamethylcyclopentasilo  | LC50  | 8,67 mg/l | dust/mist       | 4 h      | rat     | OECD Guideline 403 (Acute |
| xane                      |       |           |                 |          |         | Inhalation Toxicity)      |
| 541-02-6                  |       |           |                 |          |         | -                         |

### Skin corrosion/irritation:

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

| Hazardous substances      | Result         | Exposure | Species | Method   |
|---------------------------|----------------|----------|---------|--|
| CAS-No.                   |                | time     |         |  |
| Octamethylcyclotetrasilox | not irritating |          | rabbit  | equivalent or similar to OECD Guideline 404 (Acute       |
| ane                       | _              |          |         | Dermal Irritation / Corrosion)                           |
| 556-67-2                  |                |          |         | ·  |
| Methyltriacetoxysilane    | corrosive      | 4 h      | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 4253-34-3                 |                |          |         |  |
| Decamethylcyclopentasilo  | not irritating | 24 h     | rabbit  | equivalent or similar to OECD Guideline 404 (Acute       |
| xane                      |                |          |         | Dermal Irritation / Corrosion)                           |
| 541-02-6                  |                |          |         |  |
| Dodecamethylcyclohexasi   | not irritating | 4 h      | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| loxane                    |                |          |         |  |
| 540-97-6                  |                |          |         |  |

# Serious eye damage/irritation:

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

| Hazardous substances      | Result         | Exposure | Species | Method   |
|---------------------------|----------------|----------|---------|--|
| CAS-No.                   |                | time     |         |  |
| Octamethylcyclotetrasilox | not irritating |          | rabbit  | equivalent or similar to OECD Guideline 405 (Acute Eye |
| ane                       |                |          |         | Irritation / Corrosion)                                |
| 556-67-2                  |                |          |         |  |
| Methyltriacetoxysilane    | Category 1     |          | rabbit  | OECD Guideline 405 (Acute Eye Irritation / Corrosion)  |
| 4253-34-3                 | (irreversible  |          |         |  |
|                           | effects on the |          |         |  |
|                           | eye)           |          |         |  |
| Decamethylcyclopentasilo  | not irritating | 24 h     | rabbit  | equivalent or similar to OECD Guideline 405 (Acute Eye |
| xane                      |                |          |         | Irritation / Corrosion)                                |
| 541-02-6                  |                |          |         |  |
| Dodecamethylcyclohexasi   | not irritating |          | rabbit  | OECD Guideline 405 (Acute Eye Irritation / Corrosion)  |
| loxane                    |                |          |         |  |
| 540-97-6                  |                |          |         |  |

# Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances      | Result          | Test type               | Species    | Method                                  |
|---------------------------|-----------------|-------------------------|------------|---|
| CAS-No.                   |                 |                         |            |   |
| Octamethylcyclotetrasilox | not sensitising | Guinea pig maximisation | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| ane                       |                 | test                    |            |   |
| 556-67-2                  |                 |                         |            |   |
| Methyltriacetoxysilane    | not sensitising | Guinea pig maximisation | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| 4253-34-3                 |                 | test                    |            |   |
| Decamethylcyclopentasilo  | not sensitising | Mouse local lymphnode   | mouse      | equivalent or similar to OECD Guideline |
| xane                      |                 | assay (LLNA)            |            | 429 (Skin Sensitisation: Local Lymph    |
| 541-02-6                  |                 |                         |            | Node Assay)                             |
| Dodecamethylcyclohexasi   | not sensitising | Guinea pig maximisation | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| loxane                    |                 | test                    |            |   |
| 540-97-6                  |                 |                         |            |   |

# Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.               | Result   | Type of study / Route of                               | Metabolic activation /         | Species | Method  |
|---|----------|--|--------------------------------|---------|---|
| Octamethylcyclotetrasilox                     | negative | administration bacterial gene                          | Exposure time with and without |         | OECD Guideline 471  |
| ane<br>556-67-2                               |          | mutation assay   |                                |         | (Bacterial Reverse Mutation<br>Assay)   |
| Octamethylcyclotetrasilox ane                 | negative | in vitro mammalian chromosome                          | with and without               |         | equivalent or similar to OECD<br>Guideline 473 (In vitro  |
| 556-67-2                                      |          | aberration test  |                                |         | Mammalian Chromosome<br>Aberration Test)  |
| Octamethylcyclotetrasilox<br>ane<br>556-67-2  | negative | mammalian cell<br>gene mutation assay                  | with and without               |         | equivalent or similar to OECD<br>Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)       |
| Methyltriacetoxysilane 4253-34-3              | negative | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without               |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)   |
| Methyltriacetoxysilane<br>4253-34-3           | negative | in vitro mammalian<br>chromosome<br>aberration test    | with and without               |         | OECD Guideline 473 (In vitro<br>Mammalian Chromosome<br>Aberration Test)                                |
| Methyltriacetoxysilane<br>4253-34-3           | negative | mammalian cell<br>gene mutation assay                  | with and without               |         | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                   |
| Decamethylcyclopentasilo xane 541-02-6        | negative | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without               |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)   |
| Decamethylcyclopentasilo xane 541-02-6        | negative | in vitro mammalian<br>chromosome<br>aberration test    | with and without               |         | OECD Guideline 473 (In vitro<br>Mammalian Chromosome<br>Aberration Test)                                |
| Decamethylcyclopentasilo xane 541-02-6        | negative | mammalian cell<br>gene mutation assay                  | with and without               |         | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                   |
| Dodecamethylcyclohexasi<br>loxane<br>540-97-6 | negative | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without               |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)   |
| Dodecamethylcyclohexasi<br>loxane<br>540-97-6 | negative | mammalian cell<br>gene mutation assay                  | with and without               |         | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                   |
| Octamethylcyclotetrasilox<br>ane<br>556-67-2  | negative | inhalation   |                                | rat     | equivalent or similar to OECD<br>Guideline 475 (Mammalian<br>Bone Marrow Chromosome<br>Aberration Test) |
| Octamethylcyclotetrasilox<br>ane<br>556-67-2  | negative | oral: gavage   |                                | rat     | equivalent or similar to OECD<br>Guideline 478 (Genetic<br>Toxicology: Rodent Dominant<br>Lethal Test)  |
| Decamethylcyclopentasilo<br>xane<br>541-02-6  | negative | inhalation   |                                | rat     | OECD Guideline 486<br>(Unscheduled DNA Synthesis<br>(UDS) Test with Mammalian<br>Liver Cells in vivo)   |
| Decamethylcyclopentasilo xane 541-02-6        | negative | inhalation: vapour                                     |                                | rat     | OECD Guideline 474<br>(Mammalian Erythrocyte<br>Micronucleus Test)                                      |
| Dodecamethylcyclohexasi<br>loxane<br>540-97-6 | negative | intraperitoneal  |                                | mouse   | OECD Guideline 474<br>(Mammalian Erythrocyte<br>Micronucleus 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<br>CAS-No.               | Result / Value  | Test type                   | Route of application  | Species | Method  |
|---|---|-----------------------------|-----------------------|---------|---|
| Octamethylcyclotetrasilox<br>ane<br>556-67-2  | NOAEL P 300 ppm<br>NOAEL F1 300 ppm                                   | two-<br>generation<br>study | inhalation            | rat     | equivalent or similar to OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)   |
| Methyltriacetoxysilane<br>4253-34-3           | NOAEL P >= $1.000 \text{ mg/kg}$<br>NOAEL F1 >= $1.000 \text{ mg/kg}$ | screening                   | oral: gavage          | rat     | OECD Guideline 422<br>(Combined Repeated Dose<br>Toxicity Study with the<br>Reproduction /<br>Developmental Toxicity<br>Screening Test) |
| Decamethylcyclopentasilo<br>xane<br>541-02-6  | NOAEL P >= 160 ppm<br>NOAEL F1 >= 160 ppm<br>NOAEL F2 >= 160 ppm      | two-<br>generation<br>study | inhalation:<br>vapour | rat     | EPA OPPTS 870.3800<br>(Reproduction and Fertility<br>Effects)   |
| Dodecamethylcyclohexasi<br>loxane<br>540-97-6 | NOAEL P 1.000 mg/kg<br>NOAEL F1 1.000 mg/kg                           | screening                   | oral: gavage          | rat     | OECD Guideline 422<br>(Combined Repeated Dose<br>Toxicity Study with the<br>Reproduction /<br>Developmental Toxicity<br>Screening Test) |

# 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<br>CAS-No.               | Result / Value          | Route of application | Exposure time /<br>Frequency of<br>treatment               | Species | Method  |
|---|-------------------------|----------------------|--|---------|---|
| Octamethylcyclotetrasilox<br>ane<br>556-67-2  | LOAEL 35 ppm            | inhalation           | 6 h nose only<br>inhalation<br>5 days/week for 13<br>weeks | rat     | OECD Guideline 412<br>(Repeated Dose<br>Inhalation Toxicity:<br>28/14-Day)  |
| Octamethylcyclotetrasilox<br>ane<br>556-67-2  | NOAEL 960 mg/kg         | dermal               | 3 w<br>5 d/w   | rabbit  | equivalent or similar to<br>OECD Guideline 410<br>(Repeated Dose Dermal<br>Toxicity: 21/28-Day<br>Study)                                |
| Methyltriacetoxysilane<br>4253-34-3           | NOAEL 50 mg/kg          | oral: gavage         | 28-51 d<br>daily   | rat     | OECD Guideline 422<br>(Combined Repeated<br>Dose Toxicity Study with<br>the Reproduction /<br>Developmental Toxicity<br>Screening Test) |
| Decamethylcyclopentasilo xane 541-02-6        | NOAEL >= 1.000<br>mg/kg | oral: gavage         | 13 w<br>daily  | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents)  |
| Dodecamethylcyclohexasi<br>loxane<br>540-97-6 | NOAEL 1.000 mg/kg       | oral: gavage         | 29 d<br>daily, 7 d/w                                       | rat     | OECD Guideline 422<br>(Combined Repeated<br>Dose Toxicity Study with<br>the Reproduction /<br>Developmental Toxicity<br>Screening Test) |

# Aspiration hazard:

No data available.

# **SECTION 12: Ecological information**

### **General ecological information:**

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

Cured Loctite products are typical polymers and do not pose any immediate environmental hazards.

In the cured state contribution of this product to Environmental Hazards is insignificant in comparison to articles in which it is used.

Precautions required with respect to Environmental Hazards of articles in which this product is used should be considered.

### 12.1. Toxicity

### Toxicity (Fish):

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

| Hazardous substances                         | Value | Value       | Exposure time | Species  | Method   |
|--|-------|-------------|---------------|--|--|
| CAS-No.                                      | type  |             |               |  |  |
| Octamethylcyclotetrasiloxane 556-67-2        | NOEC  | 0,0044 mg/l | 93 d          | Salmo gairdneri (new name:<br>Oncorhynchus mykiss) | other guideline:   |
| Octamethylcyclotetrasiloxane 556-67-2        | LC50  |             | 96 h          | Oncorhynchus mykiss                                | EPA OTS 797.1400 (Fish<br>Acute Toxicity Test)           |
| Methyltriacetoxysilane<br>4253-34-3          | LC50  | > 110 mg/l  | 96 h          | Oncorhynchus mykiss                                | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)        |
| Decamethylcyclopentasiloxan<br>e<br>541-02-6 | LC50  |             | 96 h          | Leuciscus idus                                     | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)        |
| Decamethylcyclopentasiloxan<br>e<br>541-02-6 | NOEC  |             | 90 d          | Oncorhynchus mykiss                                | OECD Guideline 210 (fish early lite stage toxicity test) |

### Toxicity (Daphnia):

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

| Hazardous substances                         | Value | Value | Exposure time | Species       | Method  |
|--|-------|-------|---------------|---------------|---|
| CAS-No.                                      | type  |       |               |               |   |
| Octamethylcyclotetrasiloxane 556-67-2        | EC50  |       | 48 h          |               | EPA OTS 797.1300<br>(Aquatic Invertebrate Acute<br>Toxicity Test, Freshwater<br>Daphnids) |
| Decamethylcyclopentasiloxan<br>e<br>541-02-6 | EC50  |       | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test)                          |

### Chronic toxicity to aquatic invertebrates

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

| Hazardous substances CAS-No.                  | Value<br>type | Value    | Exposure time | Species       | Method   |
|---|---------------|----------|---------------|---------------|--|
| Octamethylcyclotetrasiloxane 556-67-2         | NOEC          | 7.9 µg/l | 21 d          | Daphnia magna | EPA OTS 797.1330<br>(Daphnid Chronic Toxicity<br>Test) |
| Decamethylcyclopentasiloxan<br>e<br>541-02-6  | NOEC          |          | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test)         |
| Dodecamethylcyclohexasiloxa<br>ne<br>540-97-6 | NOEC          |          |               | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test)         |

### Toxicity (Algae):

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

| Hazardous substances         | Value | Value        | Exposure time | Species                                     | Method                    |
|------------------------------|-------|--------------|---------------|---|---------------------------|
| CAS-No.                      | type  |              | _             | 1   |                           |
| Octamethylcyclotetrasiloxane | EC50  |              | 96 h          | Selenastrum capricornutum                   | EPA OTS 797.1050 (Algal   |
| 556-67-2                     |       |              |               | (new name: Pseudokirchneriella subcapitata) | Toxicity, Tiers I and II) |
| Octamethylcyclotetrasiloxane | NOEC  | < 0,022 mg/l | 96 h          | Selenastrum capricornutum                   | EPA OTS 797.1050 (Algal   |
| 556-67-2                     |       |              |               | (new name: Pseudokirchneriella subcapitata) | Toxicity, Tiers I and II) |
| Decamethylcyclopentasiloxan  | NOEC  |              | 96 h          |   | OECD Guideline 201 (Alga, |
| e                            |       |              |               | (new name: Pseudokirchneriella              | Growth Inhibition Test)   |
| 541-02-6                     |       |              |               | subcapitata)                                |                           |
| Decamethylcyclopentasiloxan  | EC50  |              | 96 h          | Selenastrum capricornutum                   | OECD Guideline 201 (Alga, |
| e                            |       |              |               | (new name: Pseudokirchneriella              | Growth Inhibition Test)   |
| 541-02-6                     |       |              |               | subcapitata)                                |                           |
| Dodecamethylcyclohexasiloxa  | NOEC  |              |               | Pseudokirchneriella subcapitata             | OECD Guideline 201 (Alga, |
| ne                           |       |              |               |   | Growth Inhibition Test)   |
| 540-97-6                     |       |              |               |   |                           |
| Dodecamethylcyclohexasiloxa  | EC50  |              |               | Pseudokirchneriella subcapitata             | OECD Guideline 201 (Alga, |
| ne                           |       |              |               |   | Growth Inhibition Test)   |
| 540-97-6                     |       |              |               |   |                           |

# Toxicity to microorganisms

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

| Hazardous substances         | Value | Value         | Exposure time | Species            | Method                   |
|------------------------------|-------|---------------|---------------|--------------------|--------------------------|
| CAS-No.                      | type  |               |               |                    |                          |
| Octamethylcyclotetrasiloxane | EC50  |               | 3 h           | activated sludge   | ISO 8192 (Test for       |
| 556-67-2                     |       |               |               |                    | Inhibition of Oxygen     |
|                              |       |               |               |                    | Consumption by Activated |
|                              |       |               |               |                    | Sludge)                  |
| Decamethylcyclopentasiloxan  | EC0   | > 10.000 mg/l | 30 min        | Pseudomonas putida | DIN 38412, part 27       |
| e                            |       |               |               |                    | (Bacterial oxygen        |
| 541-02-6                     |       |               |               |                    | consumption test)        |

# 12.2. Persistence and degradability

The product is not biodegradable.

| Hazardous substances<br>CAS-No.               | Result                     | Test type | Degradability | Exposure time | Method   |
|---|----------------------------|-----------|---------------|---------------|--|
| Octamethylcyclotetrasiloxane 556-67-2         | not readily biodegradable. | aerobic   | 3,7 %         | 29 d          | OECD Guideline 310 (Ready<br>BiodegradabilityCO2 in Sealed<br>Vessels (Headspace Test) |
| Decamethylcyclopentasiloxan<br>e<br>541-02-6  | not readily biodegradable. | aerobic   | 0,14 %        | 28 d          | OECD Guideline 310 (Ready<br>BiodegradabilityCO2 in Sealed<br>Vessels (Headspace Test) |
| Dodecamethylcyclohexasiloxa<br>ne<br>540-97-6 | not readily biodegradable. | aerobic   | 4,47 %        | 28 d          | OECD Guideline 310 (Ready<br>BiodegradabilityCO2 in Sealed<br>Vessels (Headspace Test) |

### 12.3. Bioaccumulative potential

| Hazardous substances CAS-No.                  | Bioconcentratio<br>n factor (BCF) | Exposure time | Temperature | Species                | Method  |
|---|-----------------------------------|---------------|-------------|------------------------|---|
| Octamethylcyclotetrasiloxane 556-67-2         | 12.400                            | 28 d          |             | Pimephales<br>promelas | EPA OTS 797.1520 (Fish<br>Bioconcentration Test-Rainbow<br>Trout)   |
| Decamethylcyclopentasiloxan<br>e<br>541-02-6  | 7.060                             | 35 d          |             | Pimephales<br>promelas | OECD Guideline 305<br>(Bioconcentration: Flow-through<br>Fish Test) |
| Dodecamethylcyclohexasiloxa<br>ne<br>540-97-6 | 1.160                             | 49 d          |             | Pimephales<br>promelas | OECD Guideline 305<br>(Bioconcentration: Flow-through<br>Fish Test) |

# 12.4. Mobility in soil

Cured adhesives are immobile.

| Hazardous substances         | LogPow | Temperature | Method   |
|------------------------------|--------|-------------|--|
| CAS-No.                      |        |             |  |
| Octamethylcyclotetrasiloxane | 6,488  | 25,1 °C     | OECD Guideline 123 (Partition Coefficient (1-Octanol / Water), Slow- |
| 556-67-2                     |        |             | Stirring Method)   |
| Decamethylcyclopentasiloxan  | 8,023  | 25,3 °C     | OECD Guideline 123 (Partition Coefficient (1-Octanol / Water), Slow- |
| e                            |        |             | Stirring Method)   |
| 541-02-6                     |        |             |  |
| Dodecamethylcyclohexasiloxa  | 8,87   | 23,6 °C     | not specified  |
| ne                           |        |             |  |
| 540-97-6                     |        |             |  |

### 12.5. Results of PBT and vPvB assessment

| Hazardous substances          | PBT / vPvB   |
|-------------------------------|--|
| CAS-No.                       |  |
| Octamethylcyclotetrasiloxane  | Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very     |
| 556-67-2                      | Bioaccumulative (vPvB) criteria.   |
| Methyltriacetoxysilane        | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 4253-34-3                     | Bioaccumulative (vPvB) criteria.   |
| Decamethylcyclopentasiloxane  | very Persistent and very Bioaccumulative (vPvB)                                      |
| 541-02-6                      |  |
| Dodecamethylcyclohexasiloxane | Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very     |
| 540-97-6                      | Bioaccumulative (vPvB) criteria.   |

### 12.6. Other adverse effects

No data available.

# **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Collection and delivery to recycling enterprise or other registered elimination institution.

### 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.

Disposal must be made according to official regulations.

### Waste code

 $08\ 04\ 09$  waste adhesives and sealants containing organic solvents and other dangerous substances

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

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. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

# **SECTION 15: Regulatory information**

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

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

# 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

# **SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H361f Suspected of damaging fertility.

H413 May cause long lasting harmful effects to aquatic life.

#### **Further information:**

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