

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

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BERGQUIST SIL PAD TSP 900 known as SIL PAD 400

SDS No. : 591916 V001.0 Revision: 30.11.2018 printing date: 20.05.2020 Replaces version from: -

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

- 1.1. Product identifier BERGQUIST SIL PAD TSP 900 known as SIL PAD 400
- **1.2. Relevant identified uses of the substance or mixture and uses advised against** Intended use: Thermal Interface Material
- **1.3. Details of the supplier of the safety data sheet** Henkel AG & Co. KGaA Henkelstr. 67 40589 Düsseldorf

Germany

Phone: +49 211 797 0 Fax-no.: +49 211 798 2009

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):

Substances and preparations marketed in a specific form or within specific containers need not to be classified according to the REACH Regulation Article 3 (3).

### 2.2. Label elements

### Label elements (CLP):

Substances and preparations marketed in a specific form or within specific containers need not to be classified according to the REACH Regulation Article 3 (3).

### 2.3. Other hazards

None if used properly.

This article 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:

Manufactured item - article

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

| Hazardous components         | EC Number        | content   | Classification                            |
|------------------------------|------------------|-----------|---|
| CAS-No.                      | REACH-Reg No.    |           |   |
| Octamethylcyclotetrasiloxane | 209-136-7        | 0,1-<1%   | Flam. Liq. 3                              |
| 556-67-2                     | 01-2119529238-36 |           | H226                                      |
|                              |                  |           | Repr. 2                                   |
|                              |                  |           | H361f                                     |
|                              |                  |           | Aquatic Chronic 4                         |
|                              |                  |           | H413                                      |
|                              |                  |           |   |
|                              |                  |           | EU. REACH Candidate List of Substances of |
|                              |                  |           | Very High Concern for Authorization       |
|                              |                  |           | (SVHC)                                    |
| Toluene                      | 203-625-9        | 0,1-< 1 % | Flam. Liq. 2                              |
| 108-88-3                     | 01-2119471310-51 |           | H225                                      |
|                              |                  |           | Repr. 2                                   |
|                              |                  |           | H361d                                     |
|                              |                  |           | Asp. Tox. 1                               |
|                              |                  |           | H304                                      |
|                              |                  |           | STOT RE 2; Inhalation                     |
|                              |                  |           | H373                                      |
|                              |                  |           | Skin Irrit. 2                             |
|                              |                  |           | H315                                      |
|                              |                  |           | STOT SE 3; Inhalation                     |
|                              |                  |           | H336                                      |
|                              |                  |           | Aquatic Chronic 3                         |
|                              |                  |           | H412                                      |

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

## **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

Inhalation: Move to fresh air. If symptoms persist, seek medical advice.

Skin contact: Rinse with running water and soap. Obtain medical attention if irritation persists.

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

Ingestion: Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

# **SECTION 5: Firefighting measures**

**5.1. Extinguishing media Suitable extinguishing media:** water, carbon dioxide, foam, powder

**Extinguishing media which must not be used for safety reasons:** High pressure waterjet

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

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released. In case of fire, keep containers cool with water spray.

## 5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

#### **Additional information:**

In case of fire, keep containers cool with water spray.

## **SECTION 6: Accidental release measures**

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

Avoid contact with skin and eyes. Wear protective equipment. Ensure adequate ventilation.

### 6.2. Environmental precautions

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

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

Scrape up as much material as possible. Sweep up spilled material. Avoid creating dust. Keep in suitable and closed containers for disposal.

### 6.4. Reference to other sections

See advice in section 8

# **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Avoid skin and eye contact. See advice in section 8

### Hygiene measures:

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

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

Ensure good ventilation/extraction. Keep container tightly sealed. Refer to Technical Data Sheet

**7.3. Specific end use(s)** Thermal Interface Material

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

# **Occupational Exposure Limits**

Valid for

Great Britain

| Ingredient [Regulated substance]  | ррт | mg/m <sup>3</sup> | Value type                           | Short term exposure limit<br>category / Remarks | Regulatory list |
|---|-----|-------------------|--------------------------------------|---|-----------------|
| Aluminium oxide<br>1344-28-1<br>[ALUMINIUM OXIDES, INHALABLE<br>DUST]   |     | 10                | Time Weighted Average<br>(TWA):      |   | EH40 WEL        |
| Aluminium oxide<br>1344-28-1<br>[ALUMINIUM OXIDES, RESPIRABLE<br>DUST]  |     | 4                 | Time Weighted Average<br>(TWA):      |   | EH40 WEL        |
| Silicon dioxide<br>7631-86-9<br>[SILICA, AMORPHOUS, INHALABLE<br>DUST]  |     | 6                 | Time Weighted Average<br>(TWA):      |   | EH40 WEL        |
| Silicon dioxide<br>7631-86-9<br>[SILICA, AMORPHOUS, RESPIRABLE<br>DUST] |     | 2,4               | Time Weighted Average<br>(TWA):      |   | EH40 WEL        |
| Toluene<br>108-88-3<br>[TOLUENE]  | 50  | 191               | Time Weighted Average (TWA):         |   | EH40 WEL        |
| Toluene<br>108-88-3<br>[TOLUENE]  | 100 | 384               | Short Term Exposure<br>Limit (STEL): |   | EH40 WEL        |
| Toluene<br>108-88-3<br>[TOLUENE]  |     |                   | Skin designation:                    | Can be absorbed through the skin.               | EH40 WEL        |
| Toluene<br>108-88-3<br>[TOLUENE]  | 50  | 192               | Time Weighted Average (TWA):         | Indicative                                      | ECTLV           |
| Toluene<br>108-88-3<br>[TOLUENE]  | 100 | 384               | Short Term Exposure<br>Limit (STEL): | Indicative                                      | ECTLV           |

# **Occupational Exposure Limits**

Valid for

Ireland

| Ingredient [Regulated substance]   | ррт | mg/m <sup>3</sup> | Value type                           | Short term exposure limit category / Remarks | Regulatory list |
|--|-----|-------------------|--------------------------------------|--|-----------------|
| Aluminium oxide<br>1344-28-1<br>[ALUMINIUM OXIDES, RESPIRABLE<br>DUST]       |     | 4                 | Time Weighted Average<br>(TWA):      |  | IR_OEL          |
| Aluminium oxide<br>1344-28-1<br>[ALUMINIUM OXIDES, TOTAL<br>INHALABLE DUST]  |     | 10                | Time Weighted Average<br>(TWA):      |  | IR_OEL          |
| Silicon dioxide<br>7631-86-9<br>[SILICA, AMORPHOUS, TOTAL<br>INHALABLE DUST] |     | 6                 | Time Weighted Average<br>(TWA):      |  | IR_OEL          |
| Silicon dioxide<br>7631-86-9<br>[SILICA, AMORPHOUS, RESPIRABLE<br>DUST]      |     | 2,4               | Time Weighted Average<br>(TWA):      |  | IR_OEL          |
| Toluene<br>108-88-3<br>[TOLUENE]   | 50  | 192               | Time Weighted Average (TWA):         | Indicative OELV                              | IR_OEL          |
| Toluene<br>108-88-3<br>[TOLUENE]   | 100 | 384               | Short Term Exposure<br>Limit (STEL): | Indicative OELV                              | IR_OEL          |
| Toluene  |     |                   | Skin designation:                    | Can be absorbed through the                  | IR_OEL          |

| 108-88-3<br>[TOLUENE]            |     |     |                                      | skin.      |       |
|----------------------------------|-----|-----|--------------------------------------|------------|-------|
| Toluene<br>108-88-3<br>[TOLUENE] | 50  | 192 | Time Weighted Average (TWA):         | Indicative | ECTLV |
| Toluene<br>108-88-3<br>[TOLUENE] | 100 |     | Short Term Exposure<br>Limit (STEL): | Indicative | ECTLV |

# Predicted No-Effect Concentration (PNEC):

| Name on list                             | Environmental<br>Compartment       | Exposure<br>period | Value          |     |                |        | Remarks |
|--|------------------------------------|--------------------|----------------|-----|----------------|--------|---------|
|  |                                    |                    | mg/l           | ppm | mg/kg          | others |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | aqua<br>(freshwater)               |                    | 0,0015<br>mg/l |     |                |        |         |
| Octamethylcyclotetrasiloxane             | aqua (marine                       |                    | 0.00015        |     |                |        |         |
| 556-67-2                                 | water)                             |                    | mg/l           |     |                |        |         |
| Octamethylcyclotetrasiloxane             | sewage                             |                    | 10 mg/l        |     |                |        |         |
| 556-67-2                                 | treatment plant<br>(STP)           |                    |                |     |                |        |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | sediment<br>(freshwater)           |                    |                |     | 3 mg/kg        |        |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | sediment<br>(marine water)         |                    |                |     | 0,3 mg/kg      |        |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | oral                               |                    |                |     | 41 mg/kg       |        |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | Soil                               |                    |                |     | 0,54 mg/kg     |        |         |
| Toluene<br>108-88-3                      | aqua<br>(freshwater)               |                    | 0,68 mg/l      |     |                |        |         |
| Toluene<br>108-88-3                      | sediment<br>(freshwater)           |                    |                |     | 16,39<br>mg/kg |        |         |
| Toluene<br>108-88-3                      | sediment<br>(marine water)         |                    |                |     | 16,39<br>mg/kg |        |         |
| Toluene<br>108-88-3                      | Soil                               |                    |                |     | 2,89 mg/kg     |        |         |
| Toluene<br>108-88-3                      | sewage<br>treatment plant<br>(STP) |                    | 13,61 mg/l     |     |                |        |         |
| Toluene<br>108-88-3                      | aqua (marine<br>water)             |                    | 0,68 mg/l      |     |                |        |         |
| Toluene<br>108-88-3                      | aqua<br>(intermittent<br>releases) |                    | 0,68 mg/l      |     |                |        |         |

# Derived No-Effect Level (DNEL):

| Name on list                             | Application<br>Area   | Route of<br>Exposure | Health Effect                                      | Exposure<br>Time | Value      | Remarks |
|--|-----------------------|----------------------|--|------------------|------------|---------|
| Octamethylcyclotetrasiloxane<br>556-67-2 | Workers               | inhalation           | Long term<br>exposure -<br>systemic effects        |                  | 73 mg/m3   |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | Workers               | inhalation           | Long term<br>exposure - local<br>effects           |                  | 73 mg/m3   |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | Workers               | inhalation           | Acute/short term<br>exposure -<br>systemic effects |                  | 73 mg/m3   |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | Workers               | inhalation           | Acute/short term<br>exposure - local<br>effects    |                  | 73 mg/m3   |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | General<br>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    | inhalation           | Acute/short term<br>exposure -<br>systemic effects |                  | 13 mg/m3   |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | General<br>population | inhalation           | Acute/short term<br>exposure - local<br>effects    |                  | 13 mg/m3   |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | General<br>population | oral                 | Long term<br>exposure -<br>systemic effects        |                  | 3,7 mg/kg  |         |
| Octamethylcyclotetrasiloxane<br>556-67-2 | General<br>population | oral                 | Acute/short term<br>exposure -<br>systemic effects |                  | 3,7 mg/kg  |         |
| Toluene<br>108-88-3                      | Workers               | Inhalation           | Acute/short term<br>exposure - local<br>effects    |                  | 384 mg/m3  |         |
| Toluene<br>108-88-3                      | Workers               | Inhalation           | Acute/short term<br>exposure -<br>systemic effects |                  | 384 mg/m3  |         |
| Toluene<br>108-88-3                      | Workers               | Inhalation           | Long term<br>exposure - local<br>effects           |                  | 192 mg/m3  |         |
| Toluene<br>108-88-3                      | Workers               | Inhalation           | Long term<br>exposure -<br>systemic effects        |                  | 192 mg/m3  |         |
| Toluene<br>108-88-3                      | Workers               | dermal               | Long term<br>exposure -<br>systemic effects        |                  | 384 mg/kg  |         |
| Toluene<br>108-88-3                      | General population    | Inhalation           | Acute/short term<br>exposure - local<br>effects    |                  | 226 mg/m3  |         |
| Toluene<br>108-88-3                      | General<br>population | Inhalation           | Acute/short term<br>exposure -<br>systemic effects |                  | 226 mg/m3  |         |
| Toluene<br>108-88-3                      | General population    | Inhalation           | Long term<br>exposure -<br>systemic effects        |                  | 56,5 mg/m3 |         |
| Toluene<br>108-88-3                      | General population    | dermal               | Long term<br>exposure -<br>systemic effects        |                  | 226 mg/kg  |         |
| Toluene<br>108-88-3                      | General population    | oral                 | Long term<br>exposure -<br>systemic effects        |                  | 8,13 mg/kg |         |
| Toluene<br>108-88-3                      | General population    | inhalation           | Long term<br>exposure - local<br>effects           |                  | 56,5 mg/m3 |         |

### Biological Exposure Indices: None

#### 8.2. Exposure controls:

Engineering controls: Ensure good ventilation/extraction.

Respiratory protection: Ensure adequate ventilation. An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area Filter type: A (EN 14387)

Hand protection: Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): nitrile rubber (NBR; >= 0.4 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): nitrile rubber (NBR; >= 0.4 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy

with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection: 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** 

| SECTION  | ( ). I hysical and chemical properties |
|--|--|
| <b>9.1. Information on basic physical and ch</b><br>Appearance | emical properties<br>solid             |
|  | solid                                  |
|  | grey                                   |
| Odor   | None                                   |
| Odour threshold  | No data available / Not applicable     |
|  |  |
| pH   | No data available / Not applicable     |
| Melting point  | No data available / Not applicable     |
| Solidification temperature                                     | No data available / Not applicable     |
| Initial boiling point  | No data available / Not applicable     |
| Flash point  | No data available / Not applicable     |
| Evaporation rate   | No data available / Not applicable     |
| Flammability   | No data available / Not applicable     |
| Explosive limits   | No data available / Not applicable     |
| Vapour pressure  | No data available / Not applicable     |
| Relative vapour density:                                       | No data available / Not applicable     |
| Density  | No data available / Not applicable     |
| Bulk density   | No data available / Not applicable     |
|  |  |

| Solubility                             |
|--|
| Solubility (qualitative)               |
| Partition coefficient: n-octanol/water |
| Auto-ignition temperature              |
| Decomposition temperature              |
| Viscosity                              |
| Viscosity (kinematic)                  |
| Explosive properties                   |
| Oxidising properties                   |
|  |

### 9.2. Other information

No data available / Not applicable

# **SECTION 10: Stability and reactivity**

**10.1. Reactivity** None.

### **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

carbon oxides.

## **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

Acute oral toxicity:

| 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                  |       |               |         |   |
| Toluene                   | LD50  | 5.580 mg/kg   | rat     | EU Method B.1 (Acute Toxicity (Oral))                   |
| 108-88-3                  |       |               |         |   |

#### Acute dermal toxicity:

| 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                  |       |               |         |  |
| Toluene                   | LD50  | > 5.000 mg/kg | rabbit  | not specified                                      |
| 108-88-3                  |       |               |         |  |

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

# Acute inhalative toxicity:

| Hazardous substances      | Value | Value     | Test atmosphere | -    | 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                  |       |           |                 |      |         |                           |
| Toluene                   | LC50  | 28,1 mg/l | vapour          | 4 h  | rat     | OECD Guideline 403 (Acute |
| 108-88-3                  |       |           |                 |      |         | Inhalation Toxicity)      |

### Skin corrosion/irritation:

| Hazardous substances<br>CAS-No.              | Result         | Exposure<br>time | Species | Method   |
|--|----------------|------------------|---------|--|
| Octamethylcyclotetrasilox<br>ane<br>556-67-2 | not irritating |                  | rabbit  | equivalent or similar to OECD Guideline 404 (Acute<br>Dermal Irritation / Corrosion) |
| Toluene<br>108-88-3                          | irritating     | 4 h              | rabbit  | EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion)                        |

# Serious eye damage/irritation:

| 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                  |                |          |         |  |
| Toluene                   | not irritating |          | rabbit  | OECD Guideline 405 (Acute Eye Irritation / Corrosion)  |
| 108-88-3                  |                |          |         |  |

# Respiratory or skin sensitization:

| 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                  |                 |                         |            |   |
| Toluene                   | not sensitising | Guinea pig maximisation | guinea pig | EU Method B.6 (Skin Sensitisation)      |
| 108-88-3                  | _               | test                    |            |   |

# Germ cell mutagenicity:

| Hazardous substances<br>CAS-No.              | Result   | Type of study /<br>Route of<br>administration          | Metabolic<br>activation /<br>Exposure time | Species | Method  |
|--|----------|--|--|---------|---|
| Octamethylcyclotetrasilox<br>ane<br>556-67-2 | negative | bacterial gene<br>mutation assay                       | with and without                           |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)   |
| Octamethylcyclotetrasilox<br>ane<br>556-67-2 | negative | in vitro mammalian<br>chromosome<br>aberration test    | with and without                           |         | equivalent or similar to OECD<br>Guideline 473 (In vitro<br>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)       |
| Toluene<br>108-88-3                          | negative | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | EU Method B.13/14<br>(Mutagenicity)   |
| Toluene<br>108-88-3                          | 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)  |

# Carcinogenicity

No data available.

# **Reproductive toxicity:**

| Hazardous substances<br>CAS-No. | Result / Value   | Test type  | Route of application | Species | Method                   |
|---------------------------------|------------------|------------|----------------------|---------|--------------------------|
| Octamethylcyclotetrasilox       | NOAEL P 300 ppm  | two-       | inhalation           | rat     | equivalent or similar to |
| ane                             |                  | generation |                      |         | OECD Guideline 416 (Two- |
| 556-67-2                        | NOAEL F1 300 ppm | study      |                      |         | Generation Reproduction  |
|                                 |                  |            |                      |         | Toxicity Study)          |

# STOT-single exposure:

No data available.

# STOT-repeated exposure::

| 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)           |
| Toluene<br>108-88-3                          | NOAEL 625 mg/kg | oral: gavage         | 13 weeks<br>daily, 5 days/ week                            | rat     | EU Method B.26 (Sub-<br>Chronic Oral Toxicity<br>Test: Repeated Dose 90-<br>Day Oral Toxicity Study<br>in Rodents) |

# Aspiration hazard:

| Hazardous substances<br>CAS-No. | Viscosity (kinematic)<br>Value | Temperature | Method        | Remarks |
|---------------------------------|--------------------------------|-------------|---------------|---------|
| Toluene<br>108-88-3             | 0,57 mm2/s                     | 40 °C       | not specified |         |

# **SECTION 12: Ecological information**

# 12.1. Toxicity

# Toxicity (Fish):

| 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:   |
|                                       | LC50  |             | 96 h          | Oncorhynchus mykiss                                | EPA OTS 797.1400 (Fish<br>Acute Toxicity Test)                         |
| Toluene<br>108-88-3                   | NOEC  | 3,2 mg/l    | 28 d          | Cyprinodon variegatus                              | OECD Guideline 204 (Fish,<br>Prolonged Toxicity Test:<br>14-day Study) |
| Toluene<br>108-88-3                   | LC50  | 5,5 mg/l    | 96 h          | Oncorhynchus kisutch                               | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)                      |

# Toxicity (Daphnia):

| Hazardous substances                     | Value | Value     | Exposure time | Species       | Method  |
|--|-------|-----------|---------------|---------------|---|
| CAS-No.                                  | type  |           |               |               |   |
| Octamethylcyclotetrasiloxane<br>556-67-2 | EC50  |           | 48 h          | Daphnia magna | EPA OTS 797.1300<br>(Aquatic Invertebrate Acute<br>Toxicity Test, Freshwater<br>Daphnids) |
| Toluene<br>108-88-3                      | EC50  | 11,5 mg/l | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test)                          |

# Chronic toxicity to aquatic invertebrates

| Hazardous substances         | Value | Value     | Exposure time | Species            | Method                    |
|------------------------------|-------|-----------|---------------|--------------------|---------------------------|
| CAS-No.                      | type  |           | _             | _                  |                           |
| Octamethylcyclotetrasiloxane | NOEC  | 7.9 μg/l  | 21 d          | Daphnia magna      | EPA OTS 797.1330          |
| 556-67-2                     |       |           |               |                    | (Daphnid Chronic Toxicity |
|                              |       |           |               |                    | Test)                     |
| Toluene                      | NOEC  | 0,74 mg/l | 7 d           | Ceriodaphnia dubia | other guideline:          |
| 108-88-3                     |       | Ū.        |               | -                  |                           |

# Toxicity (Algae):

| Hazardous substances                  | Value | Value        | Exposure time | Species   | Method   |
|---------------------------------------|-------|--------------|---------------|---|--|
| CAS-No.                               | type  |              |               |   |  |
| Octamethylcyclotetrasiloxane 556-67-2 | EC50  |              | 96 h          | (new name: Pseudokirchneriella                              | EPA OTS 797.1050 (Algal<br>Toxicity, Tiers I and II) |
|                                       |       |              |               | subcapitata)  |  |
| Octamethylcyclotetrasiloxane 556-67-2 | NOEC  | < 0,022 mg/l | 96 h          | Selenastrum capricornutum<br>(new name: Pseudokirchneriella | EPA OTS 797.1050 (Algal<br>Toxicity, Tiers I and II) |
|                                       |       |              |               | subcapitata)  | -  |
| Toluene<br>108-88-3                   | IC50  | 12 mg/l      | 72 h          | (new name: Pseudokirchneriella                              | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
|                                       |       |              |               | subcapitata)  |  |

# Toxicity to microorganisms

| 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)                  |
| Toluene                      | NOEC  | 29 mg/l | 16 h          | Pseudomonas putida | DIN 38412, part 8        |
| 108-88-3                     |       | -       |               | _                  | (Pseudomonas             |
|                              |       |         |               |                    | Zellvermehrungshemm-     |
|                              |       |         |               |                    | Test)                    |

# 12.2. Persistence and degradability

| Hazardous substances<br>CAS-No.          | Result                     | Test type | Degradability | Exposure<br>time | Method   |
|--|----------------------------|-----------|---------------|------------------|--|
| Octamethylcyclotetrasiloxane<br>556-67-2 | not readily biodegradable. | aerobic   | 3,7 %         | 29 d             | OECD Guideline 310 (Ready<br>BiodegradabilityCO2 in Sealed<br>Vessels (Headspace Test) |
| Toluene<br>108-88-3                      | readily biodegradable      | aerobic   | 80 %          | 20 d             | OECD Guideline 301 D (Ready<br>Biodegradability: Closed Bottle<br>Test)                |

## 12.3. Bioaccumulative potential

| Hazardous substances<br>CAS-No.          | Bioconcentratio<br>n factor (BCF) | Exposure time | Temperature | Species                     | Method  |
|--|-----------------------------------|---------------|-------------|-----------------------------|---|
| Octamethylcyclotetrasiloxane<br>556-67-2 | 12.400                            | 28 d          |             | Pimephales<br>promelas      | EPA OTS 797.1520 (Fish<br>Bioconcentration Test-Rainbow<br>Trout)   |
| Toluene<br>108-88-3                      | 90                                | 3 d           |             | Leuciscus idus<br>melanotus | OECD Guideline 305<br>(Bioconcentration: Flow-through<br>Fish Test) |

## 12.4. Mobility in soil

| 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)   |
| Toluene                      | 2,73   | 20 °C       | EU Method A.8 (Partition Coefficient)                                |
| 108-88-3                     |        |             |  |

### 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.   |
| Toluene                      | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 108-88-3                     | Bioaccumulative (vPvB) criteria.   |

### 12.6. Other adverse effects

No data available.

# **SECTION 13: Disposal considerations**

## **13.1.** Waste treatment methods

Product disposal: Do not empty into drains / surface water / ground water. Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

Dispose of in accordance with local and national regulations.

# **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 <3 %

(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:

H225 Highly flammable liquid and vapor.

- H226 Flammable liquid and vapor.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H361d Suspected of damaging the unborn child.

H361f Suspected of damaging fertility.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

#### **Further information:**

This Safety Data Sheet has been produced for sales from Henkel to parties purchasing from Henkel, is based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulations of the European Union only. In that respect, no statement, warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory other than the European Union. When exporting to territories other than the European Union, please consult with the respective Safety Data Sheet of the concerned territory to ensure compliance or liaise with Henkel's Product Safety and Regulatory Affairs Department (ua-productsafety.de@henkel.com) prior to export to other territories than the European Union.

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Substances and preparations marketed in a specific form or within specific containers need not to be classified according to the REACH Regulation Article 3 (3).

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.