

## SAFETY DATA SHEET

Creation Date 29-Jan-2013

Revision Date 24-Dec-2021

Revision Number 5

### 1. Identification

**Product Name** Octamethylcyclotetrasiloxane

**Cat No. :** AC216470000; AC216470250; AC216471000; AC216475000

**CAS No** 556-67-2  
**Synonyms** Cyclic dimethylsiloxane tetramer.

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.

#### Details of the supplier of the safety data sheet

##### Company

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

**Emergency Telephone Number** For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids  
Reproductive Toxicity

Category 3  
Category 2

#### Label Elements

**Signal Word**  
Warning

**Hazard Statements**  
Flammable liquid and vapor  
Suspected of damaging fertility

**Precautionary Statements****Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof electrical/ventilating/lighting equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge

**Response**

IF exposed or concerned: Get medical attention/advice

**Skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

**Fire**

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Storage**

Store locked up  
Store in a well-ventilated place. Keep cool

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Very toxic to aquatic life with long lasting effects

**Other hazards**

Contains a known or suspected endocrine disruptor.

### 3. Composition/Information on Ingredients

| Component                    | CAS No   | Weight % |
|------------------------------|----------|----------|
| Octamethylcyclotetrasiloxane | 556-67-2 | <=100    |

### 4. First-aid measures

|  |   |
|--|---|
| <b>General Advice</b>                      | If symptoms persist, call a physician.  |
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.   |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. |
| <b>Inhalation</b>                          | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.      |
| <b>Ingestion</b>                           | Clean mouth with water and drink afterwards plenty of water.  |
| <b>Most important symptoms and effects</b> | . Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting                             |

**Notes to Physician** Treat symptomatically

## 5. Fire-fighting measures

|   |   |
|---|---|
| <b>Suitable Extinguishing Media</b>     | Water mist may be used to cool closed containers.                 |
| <b>Unsuitable Extinguishing Media</b>   | Do not use a solid water stream as it may scatter and spread fire |
| <b>Flash Point</b>                      | 51 °C / 123.8 °F  |
| <b>Method -</b>                         | No information available  |
| <b>Autoignition Temperature</b>         | 400 °C / 752 °F   |
| <b>Explosion Limits</b>                 |   |
| <b>Upper</b>                            | No data available   |
| <b>Lower</b>                            | No data available   |
| <b>Sensitivity to Mechanical Impact</b> | No information available  |
| <b>Sensitivity to Static Discharge</b>  | No information available  |

### Specific Hazards Arising from the Chemical

Combustible material. Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Do not allow run-off from fire-fighting to enter drains or water courses.

### Hazardous Combustion Products

Silicon dioxide.

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### NFPA

**Health**  
2

**Flammability**  
2

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

|   |   |
|---|---|
| <b>Personal Precautions</b>                 | Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.  |
| <b>Environmental Precautions</b>            | Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. |
| <b>Methods for Containment and Clean Up</b> | Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.   |

## 7. Handling and storage

|                 |   |
|-----------------|---|
| <b>Handling</b> | Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges. |
| <b>Storage.</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Incompatible Materials. Acids. Bases. Water. Strong oxidizing agents.   |

## 8. Exposure controls / personal protection

|                            |   |
|----------------------------|---|
| <b>Exposure Guidelines</b> | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
|----------------------------|---|

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment.

#### Personal Protective Equipment

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

|   |   |
|---|---|
| <b>Physical State</b>                         | Liquid  |
| <b>Appearance</b>                             | Colorless   |
| <b>Odor</b>                                   | Odorless  |
| <b>Odor Threshold</b>                         | No information available                                      |
| <b>pH</b>                                     | No information available                                      |
| <b>Melting Point/Range</b>                    | 17 - 18 °C / 62.6 - 64.4 °F                                   |
| <b>Boiling Point/Range</b>                    | 175 - 176 °C / 347 - 348.8 °F @ 760 mmHg                      |
| <b>Flash Point</b>                            | 51 °C / 123.8 °F  |
| <b>Evaporation Rate</b>                       | No information available                                      |
| <b>Flammability (solid,gas)</b>               | Not applicable  |
| <b>Flammability or explosive limits</b>       |   |
| Upper   | No data available   |
| Lower   | No data available   |
| <b>Vapor Pressure</b>                         | 1.3 hPa @ 20 °C   |
| <b>Vapor Density</b>                          | No information available                                      |
| <b>Specific Gravity</b>                       | 0.956   |
| <b>Solubility</b>                             | No information available                                      |
| <b>Partition coefficient; n-octanol/water</b> | No data available   |
| <b>Autoignition Temperature</b>               | 400 °C / 752 °F   |
| <b>Decomposition Temperature</b>              | 313 °C  |
| <b>Viscosity</b>                              | No information available                                      |
| <b>Molecular Formula</b>                      | C <sub>8</sub> H <sub>24</sub> O <sub>4</sub> Si <sub>4</sub> |
| <b>Molecular Weight</b>                       | 296.61  |

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.

**Incompatible Materials** Acids, Bases, Water, Strong oxidizing agents

**Hazardous Decomposition Products** Silicon dioxide

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

### Acute Toxicity

#### Product Information Component Information

| Component                    | LD50 Oral                      | LD50 Dermal               | LC50 Inhalation            |
|------------------------------|--------------------------------|---------------------------|----------------------------|
| Octamethylcyclotetrasiloxane | LD50 > 4800 mg/kg ( Rat male ) | LD50 > 2375 mg/kg ( Rat ) | LC50 = 36 mg/L ( Rat ) 4 h |

**Toxicologically Synergistic Products** No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component                    | CAS No   | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|------------------------------|----------|------------|------------|------------|------------|------------|
| Octamethylcyclotetrasiloxane | 556-67-2 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

### Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

| Component                    | Freshwater Algae | Freshwater Fish   | Microtox   | Water Flea |
|------------------------------|------------------|---|------------|------------|
| Octamethylcyclotetrasiloxane | Not listed       | LC50: > 1000 mg/L, 96h<br>(Lepomis macrochirus)<br>LC50: > 500 mg/L, 96h<br>(Brachydanio rerio) | Not listed | Not listed |

**Persistence and Degradability** May persist

**Bioaccumulation/ Accumulation** No information available.

**Mobility** . Is not likely mobile in the environment due its low water solubility.

| Component                    | log Pow |
|------------------------------|---------|
| Octamethylcyclotetrasiloxane | 5.1     |

### 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

#### DOT

UN-No UN1993  
 Proper Shipping Name Flammable liquid, n.o.s.  
 Technical Name Octamethylcyclotetrasiloxane  
 Hazard Class 3  
 Packing Group III

#### TDG

UN-No UN1993  
 Proper Shipping Name Flammable liquid, n.o.s.  
 Hazard Class 3  
 Packing Group III

#### IATA

UN-No UN1993  
 Proper Shipping Name Flammable liquid, n.o.s.  
 Hazard Class 3  
 Packing Group III

#### IMDG/IMO

UN-No UN1993  
 Proper Shipping Name Flammable liquid, n.o.s.  
 Hazard Class 3  
 Packing Group III

### 15. Regulatory information

#### United States of America Inventory

| Component                    | CAS No   | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|------------------------------|----------|------|---|-----------------------------|
| Octamethylcyclotetrasiloxane | 556-67-2 | X    | ACTIVE  | T                           |

#### **Legend:**

**TSCA** - US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

#### **TSCA 12(b)** - Notices of Export

| Component                    | CAS No   | TSCA 12(b) - Notices of Export |
|------------------------------|----------|--------------------------------|
| Octamethylcyclotetrasiloxane | 556-67-2 | Section 4                      |

#### **International Inventories**

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component                    | CAS No   | DSL | NDL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|------------------------------|----------|-----|-----|-----------|-------|------|------|------|-------|----------|
| Octamethylcyclotetrasiloxane | 556-67-2 | X   | -   | 209-136-7 | X     | X    | X    | X    | X     | KE-26606 |

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

**U.S. Federal Regulations**

|   |   |
|---|---|
| <b>SARA 313</b>   | Not applicable  |
| <b>SARA 311/312 Hazard Categories</b>                       | See section 2 for more information                          |
| <b>CWA (Clean Water Act)</b>                                | Not applicable  |
| <b>Clean Air Act</b>  | Not applicable  |
| <b>OSHA - Occupational Safety and Health Administration</b> | Not applicable  |
| <b>CERCLA</b>   | Not applicable  |
| <b>California Proposition 65</b>                            | This product does not contain any Proposition 65 chemicals. |
| <b>U.S. State Right-to-Know Regulations</b>                 | Not applicable  |

**U.S. Department of Transportation**

|                             |   |
|-----------------------------|---|
| Reportable Quantity (RQ):   | N |
| DOT Marine Pollutant        | N |
| DOT Severe Marine Pollutant | N |

|   |  |
|---|--|
| <b>U.S. Department of Homeland Security</b> | This product does not contain any DHS chemicals. |
|---|--|

**Other International Regulations**

|                       |                        |
|-----------------------|------------------------|
| <b>Mexico - Grade</b> | Moderate risk, Grade 2 |
|-----------------------|------------------------|

**Authorisation/Restrictions according to EU REACH**

| Component                    | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances  | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|------------------------------|---|--|---|
| Octamethylcyclotetrasiloxane | -   | Use restricted. See item 70.<br>(see link for restriction details)<br>Use restricted. See item 75.<br>(see link for restriction details) | SVHC Candidate list - 209-136-7 - PBT (Article 57d) vPvB (Article 57e)                                |

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

<https://echa.europa.eu/authorisation-list>

<https://echa.europa.eu/substances-restricted-under-reach>

<https://echa.europa.eu/candidate-list-table>

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

| Component                    | CAS No   | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|------------------------------|----------|----------|------------------------------|---------------------------|--|
| Octamethylcyclotetrasiloxane | 556-67-2 | Listed   | Not applicable               | Not applicable            | Not applicable                             |

  

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities | Seveso III Directive (2012/18/EC) - Qualifying Quantities | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|-----------|--------|---|---|----------------------------|------------------------------------|
|           |        |   |   |                            |                                    |

|                              |          | for Major Accident<br>Notification | for Safety Report<br>Requirements |                |                |
|------------------------------|----------|------------------------------------|-----------------------------------|----------------|----------------|
| Octamethylcyclotetrasiloxane | 556-67-2 | Not applicable                     | Not applicable                    | Not applicable | Not applicable |

## 16. Other information

|                  |   |
|------------------|---|
| Prepared By      | Regulatory Affairs<br>Thermo Fisher Scientific<br>Email: EMSDS.RA@thermofisher.com  |
| Creation Date    | 29-Jan-2013   |
| Revision Date    | 24-Dec-2021   |
| Print Date       | 24-Dec-2021   |
| Revision Summary | This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). |

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**