1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name: Octamethylcyclotetrasiloxane
Product Number: 235695
Brand: Aldrich
Index-No.: 014-018-00-1

CAS-No.: 556-67-2

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

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone: +1 800-325-5832
Fax: +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone #: +1-703-527-3887 (CHEMTREC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Flammable liquids (Category 3), H226
Reproductive toxicity (Category 2), H361
Chronic aquatic toxicity (Category 4), H413

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word: Warning

Hazard statement(s)

H226 Flammable liquid and vapour.
H361 Suspected of damaging fertility or the unborn child.
H413 May cause long lasting harmful effects to aquatic life.

Precautionary statement(s)

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octamethylcyclotetrasiloxane</td>
<td>Flam. Liq. 3; Repr. 2; Aquatic Chronic 4; H226, H361, H413</td>
<td>&lt;= 100 %</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 **Special hazards arising from the substance or mixture**  
Carbon oxides, silicon oxides

5.3 **Advice for firefighters**  
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 **Further information**  
Use water spray to cool unopened containers.

### 6. ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures**  
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.  
For personal protection see section 8.

6.2 **Environmental precautions**  
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 **Methods and materials for containment and cleaning up**  
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 **Reference to other sections**  
For disposal see section 13.

### 7. HANDLING AND STORAGE

7.1 **Precautions for safe handling**  
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.  
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.  
For precautions see section 2.2.

7.2 **Conditions for safe storage, including any incompatibilities**  
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Storage class (TRGS 510): Flammable liquids

7.3 **Specific end use(s)**  
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 **Control parameters**  
Contains no substances with occupational exposure limit values.

8.2 **Exposure controls**  
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal protective equipment**

- **Eye/face protection**  
  Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

- **Skin protection**  
  Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

  Full contact  
  Material: Nitrile rubber
Minimum layer thickness: 0.4 mm
Break through time: 480 min
Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 30 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection**
impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

a) **Appearance**
   Form: liquid
   Colour: colourless

b) **Odour**
   No data available

c) **Odour Threshold**
   No data available

d) **pH**
   No data available

e) **Melting point/freezing point**
   Melting point/range: 17 - 18 °C (63 - 64 °F) - lit.

f) **Initial boiling point and boiling range**
   175 - 176 °C (347 - 349 °F) - lit.

g) **Flash point**
   55 °C (131 °F) - closed cup

h) **Evaporation rate**
   No data available

i) **Flammability (solid, gas)**
   No data available

j) **Upper/lower flammability or explosive limits**
   Upper explosion limit: 7.4 % (V)
   Lower explosion limit: 0.75 % (V)

k) **Vapour pressure**
   1.32 hPa (0.99 mmHg) at 25 °C (77 °F)

l) **Vapour density**
   10.24 - (Air = 1.0)

m) **Relative density**
   0.956 g/mL at 25 °C (77 °F)

n) **Water solubility**
   0.07 g/l at 25 °C (77 °F) - insoluble

o) **Partition coefficient: n-octanol/water**
   No data available

p) **Auto-ignition**
   384 - 387 °C (723 - 729 °F) at 1,013.0 hPa (759.8 mmHg)
temperature
temperature

q) Decomposition temperature
No data available

r) Viscosity
No data available

s) Explosive properties
No data available

t) Oxidizing properties
No data available

9.2 Other safety information
Relative vapour density 10.24 - (Air = 1.0)

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Heat, flames and sparks.

10.5 Incompatible materials
Strong oxidizing agents, acids, Bases

10.6 Hazardous decomposition products
Other decomposition products - No data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - > 2,000 mg/kg

LC50 Inhalation - Rat - 4 h - 36,000 mg/m³

LD50 Dermal - Rabbit - > 4,640 mg/kg
No data available

Skin corrosion/irritation
Skin - Rabbit
Result: No skin irritation - 24 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation
Eyes - Rabbit
Result: No eye irritation - 24 h
(OECD Test Guideline 405)

Respiratory or skin sensitisation
Maximisation Test (GPMT) - Guinea pig
Result: Does not cause skin sensitisation.
(OECD Test Guideline 406)

Germ cell mutagenicity
S. typhimurium
Result: negative
Mutagenicity (micronucleus test)
Rat - male and female
Result: negative

**Carcinogenicity**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

Suspected human reproductive toxicant

**Reproductive toxicity - Rat - Inhalation**

Effects on Newborn: Live birth index (# fetuses per litter; measured after birth).

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

Repeated dose toxicity - Rabbit - male and female - Dermal

RTECS: GZ4397000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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12. **ECOLOGICAL INFORMATION**

12.1 **Toxicity**

Toxicity to fish

LC50 - Leuciscus idus (Golden orfe) - 200.0 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - > 0.015 mg/l - 48 h

Toxicity to algae

EC50 - Selenastrum capricornutum (green algae) - > 0.022 mg/l - 96 h

12.2 **Persistence and degradability**

No data available

12.3 **Bioaccumulative potential**

Bioaccumulation

Pimephales promelas (fathead minnow) - 0.160 µg/l

Bioconcentration factor (BCF): 12,400

Pimephales promelas (fathead minnow) - 28 d - 0.160 µg/l

Bioconcentration factor (BCF): 14,261

12.4 **Mobility in soil**

No data available
12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1993  Class: 3  Packing group: III
Proper shipping name: Flammable liquids, n.o.s. (Octamethylcyclotetrasiloxane)
Reportable Quantity (RQ):
Poison Inhalation Hazard: No

IMDG
UN number: 1993  Class: 3  Packing group: III  EMS-No: F-E, S-E
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Octamethylcyclotetrasiloxane)

IATA
UN number: 1993  Class: 3  Packing group: III
Proper shipping name: Flammable liquid, n.o.s. (Octamethylcyclotetrasiloxane)

15. REGULATORY INFORMATION

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Fire Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

<table>
<thead>
<tr>
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<th>Revision Date</th>
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</thead>
<tbody>
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<td>556-67-2</td>
<td>2012-07-01</td>
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New Jersey Right To Know Components

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</tr>
</tbody>
</table>

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Aquatic Chronic  Chronic aquatic toxicity
Flam. Liq.  Flammable liquids
H226  Flammable liquid and vapour.
H361  Suspected of damaging fertility or the unborn child.
H413  May cause long lasting harmful effects to aquatic life.
Repr.  Reproductive toxicity

HMIS Rating
Health hazard:  1
Chronic Health Hazard:  *
Flammability:  2
Physical Hazard  0

NFPA Rating
Health hazard:  1
Fire Hazard:  2
Reactivity Hazard:  0

Further information
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Preparation Information
Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 3.14  Revision Date: 02/28/2015  Print Date: 01/08/2018