SAFETY DATA SHEET
Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: AEROSIL® R106

Chemical name:
Cyclotetrasiloxane, octamethyl-, reaction products with silica

Other means of identification
CAS Number: 68583-49-3

Recommended restrictions
Recommended use: Antiblocking agents Flow-promoting agent. Silicone rubber Toner
Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Company Name: Evonik Corporation
299 Jefferson Road
Parsippany, NJ 07054
USA

Telephone: +1 973 929 8000
Fax: +1 973 929 8040
E-mail: product-regulatory-services@evonik.com

Emergency telephone number:
24-Hour Health: +1 800 424 9300 (CHEMTREC - US & CANADA)
Emergency: +1 800 681 9531 (CHEMTREC MEXICO)
+1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazard Classification

Health Hazards
Toxic to reproduction Category 2

Label Elements

Hazard Symbol:

Signal Word: Warning
Hazard Statement: Suspected of damaging fertility or the unborn child.

Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF exposed or concerned: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/ container to an approved waste disposal plant.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Chemical name: Cyclotetrasiloxane, octamethyl-, reaction products with silica

Substances

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Content in percent (%)^</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclotetrasiloxane, octamethyl-, reaction products with silica</td>
<td>68583-49-3</td>
<td>&lt;100%</td>
</tr>
</tbody>
</table>

^ All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition information of impurities and stabilizers

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Content in percent (%)^</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octamethylcyclotetrasiloxane</td>
<td>556-87-2</td>
<td>&lt;0.3%</td>
</tr>
</tbody>
</table>

^ All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

Inhalation: In case product dust is released: Possible discomfort: cough, sneezing Move victims into fresh air.

Skin Contact: Wash off with plenty of water and soap.

Eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes or until all material has been removed. Obtain medical attention.

Ingestion: Clean mouth with water and drink afterwards plenty of water. After absorbing large amounts of substance / In case of discomfort: Supply with medical care.
5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, foam, CO2, dry powder. Adapt fire-extinguishing measures to surroundings

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical: May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition.

Special protective equipment and precautions for firefighters

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

Special protective equipment for fire-fighters: No data available.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.

Accidental release measures: Avoid dust formation.

Methods and material for containment and cleaning up: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Environmental Precautions: Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation): No data available.
Safe handling advice: Handle in accordance with good industrial hygiene and safety practice. If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used. If the workplace threshold limit value is exceeded and/or the substance is released, use appropriate respiratory protection. Wash thoroughly after handling. Provide adequate ventilation. Follow all SDS/label precautions even after container is emptied because it may retain product residues.

Contact avoidance measures: No data available.

Hygiene measures: When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. To ensure ideal skin protection: use super fatted soaps and skin cream for skin care. Wash contaminated clothing before reuse.

Storage

Safe storage conditions: Take precautionary measures against static discharges. Keep containers tightly closed in a dry, cool place.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields. In case dusts are formed, wear close fitting protective goggles.

Skin Protection

Hand Protection: Additional Information: Wear protective gloves made of the following materials: material, rubber, leather. Additional Information: The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use., Use impermeable gloves.

Skin and Body Protection: A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

Respiratory Protection: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH’s "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Hygiene measures: When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. To ensure ideal skin protection: use super fatted soaps and skin cream for skin care. Wash contaminated clothing before reuse.
9. Physical and chemical properties

Appearance
- **Physical state:** solid
- **Form:** Powder
- **Color:** White
- **Odor:** Odorless
- **Odor Threshold:** Not applicable
- **pH:** > 3.7 (40 g/l, 20 °C) 1:1 in suspension

Melting Point: Not applicable
Boiling Point: Not applicable Decomposition
Flash Point: Not applicable
Evaporation Rate: Not applicable
Flammability (solid, gas): Not applicable

Explosive limit - upper (%): not determined
Explosive limit - lower (%): not determined
Vapor pressure: Not applicable
Vapor density (air=1): No data available.
Density: approx. 2 g/cm³ (20 °C)
Relative density: No data available.

Solubility(ies)
- **Solubility in Water:** hardly soluble
- **Solubility (other):** No data available.
- **Partition coefficient (n-octanol/water):** Not applicable
- **Self Ignition Temperature:** Not known.
- **Decomposition Temperature:** > 300 °C
- **Kinematic viscosity:** No data available.
- **Dynamic viscosity:** Not applicable

Other information
- **Explosive properties:** not determined
- **Oxidizing properties:** not determined
- **Minimum ignition energy:** Not applicable
- **Minimum ignition temperature:** not determined

10. Stability and reactivity

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical Stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No hazardous reactions are known if properly handled and stored.

Conditions to avoid: Hydrophobic properties disappear at temperatures > 300°C

Incompatible Materials: No further information available

Hazardous Decomposition Products: organic products of decomposition carbon monoxide, carbon dioxide

11. Toxicological information
General information: Silicosis or other product specific illnesses of the respiratory tract were not observed in association with the product.

Information on likely routes of exposure
Inhalation: No data available.
Skin Contact: No data available.
Eye contact: No data available.
Ingestion: No data available.

Symptoms related to the physical, chemical and toxicological characteristics
Inhalation: No data available.
Skin Contact: No data available.
Eye contact: No data available.
Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: LD 50 (Rat): > 5,000 mg/kg comparable product
        LD0 (Rat): 1,000 mg/kg No deaths occurred.

Dermal
Product: LD 50 (Rat): > 2,000 mg/kg comparable product

Inhalation
Product: LC0 (Rat): 0.139 mg/l (maximum concentration attainable in experiments), No deaths occurred., comparable product

Repeated dose toxicity
Product: No data available.

Components:
Octamethylcyclotetrasiloxane: No data available.

Skin Corrosion/Irritation
Product: not irritating OECD Test Guideline 404 (Rabbit): not irritating comparable product

Serious Eye Damage/Eye Irritation
Product: not irritating Rabbit: not irritating comparable product

Respiratory or Skin Sensitization
Product: Not known.

Carcinogenicity
Product: No evidence that cancer may be caused.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogens present or none present in regulated quantities
US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogens present or none present in regulated quantities

No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

In vitro
Product: Ames test (OECD TG 471): negative comparable product

In vivo
Product: No data available.

Reproductive toxicity
Product: May damage fertility. May damage the unborn child. tested substance: octamethylcyclotetrasiloxane

Specific Target Organ Toxicity - Single Exposure
Product: no evidence for hazardous properties

Specific Target Organ Toxicity - Repeated Exposure
Product: no evidence for hazardous properties

Aspiration Hazard
Product: Not classified

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: LC 50 ((Brachydanio rerio), 96 h): > 10,000 mg/l The reported toxic effects relate to the nominal concentration. tested substance: Silicon dioxide, derived from chemical synthesis

Aquatic Invertebrates
Product: EC 50 (Daphnia magna, 24 h): > 1,000 mg/l The reported toxic effects relate to the nominal concentration. tested substance: Silicon dioxide, derived from chemical synthesis

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Components:
Octamethylcyclotetrasiloxane
NOEC (93 d): > 4.4 µg/l
Aquatic Invertebrates
Product: No data available.

Components: Octamethylcyclotetrasiloxane
No data available.

Toxicity to Aquatic Plants
Product: NOEC (Daphnia magna (Water flea), 21 d): > 15 µg/l

Components: Octamethylcyclotetrasiloxane
ErC50 (Selenastrum capricornutum (green algae), 96 h): > 22 µg/l No toxicity at the limit of solubility

Persistence and Degradability

Biodegradation
Product: The methods designed to assess persistence and biodegradability are not applicable to this product, in analogy to inorganic substances.

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: Not to be expected.

Partition Coefficient n-octanol / water (log Kow)
Product: Log Kow: Not applicable

Mobility in soil: No remarkable mobility in soil is to be expected.

Other adverse effects: An Expert Judgment stated that no classification is necessary based on present knowledge.

13. Disposal considerations

Disposal methods: No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer. The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/S32/EC) in cooperation with the disposal firm / producing firm / official authority. Waste must be disposed of in accordance with local, state, provincial and federal laws and regulations. Empty containers must be handled with care due to product residue.

Contaminated Packaging: Packaging material should be recycled or disposed of in accordance with federal, state and local regulations.

14. Transport information

Domestic regulation

49 CFR
Not regulated as a dangerous good
Remarks : Not dangerous according to transport regulations.

International Regulations
UNRTDG
Not regulated as a dangerous good

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

15. Regulatory information

US Federal Regulations
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs)
(40 CFR 721, Subpt E)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):
None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Reproductive toxicity

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

SARA 311/312 Hazardous Chemical
Chemical Identity Threshold Planning Quantity

SARA 313 (TRI Reporting)
None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
None present or none present in regulated quantities.

US State Regulations

**US. California Proposition 65**
No ingredient requiring a warning under CA Prop 65.

**US. New Jersey Worker and Community Right-to-Know Act**
No ingredient regulated by NJ Right-to-Know Law present.

**US. Massachusetts RTK - Substance List**
No ingredient regulated by MA Right-to-Know Law present.

**US. Pennsylvania RTK - Hazardous Substances**
No ingredient regulated by PA Right-to-Know Law present.

**US. Rhode Island RTK**
No ingredient regulated by RI Right-to-Know Law present.

### 16. Other information, including date of preparation or last revision

**NFPA Hazard ID**

- **Flammability**: 1
- **Health**: 0
- **Reactivity**: 0
- **Special hazard**: 0

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

**Issue Date:** 03/26/2019

**Version #:** 1.0

**Further Information:** No data available.

**Revision Information:** Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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