SAFETY DATA SHEET
Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: ZEOFOAM® 166

Chemical name: Silicon dioxide, chemically prepared

Other means of identification
CAS Number: 112926-00-8, 7631-86-9

Recommended restrictions
Recommended use: Defoamant
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
Not classified

Label Elements

Hazard Symbol: No symbol
Signal Word: No signal word.
Hazard Statement: Not applicable
Precautionary Statements
Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Chemical name:
Silicon dioxide, chemically prepared

Substances

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Content in percent (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide, chemically prepared (CAS 112926-00-8 resp. 7631-86-9)</td>
<td>112926-00-8</td>
<td></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.

Personal Protection for First-aid Responders: As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

Most important symptoms/effects, acute and delayed

Symptoms: None known.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: No hazards which require special first aid measures.

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: None known.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

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

6. Accidental release measures

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

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. Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation): No data available.

Safe handling advice: Use with adequate ventilation.

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 container tightly closed in a dry and well-ventilated place.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide, chemically prepared (CAS 112926-00-8 resp. 7631-86-9)</td>
<td>REL</td>
<td>6 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2010)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>20 millions of particles per cubic foot of air</td>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)</td>
</tr>
<tr>
<td>Exposure Limit</td>
<td>Concentration</td>
<td>Source</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>---------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>TWA 0.8 mg/m³</td>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA 3 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (03 2016)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA 10 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (03 2016)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA 3 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (03 2016)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA 15 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (03 2016)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA 15 mg/m³</td>
<td>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA 10 mg/m³</td>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (01 2015)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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 material thickness and rupture time data do not apply to non-solute solids / dusts. 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.

**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: odourless
- Odor Threshold: Not applicable
- pH: 6.0 - 8.0 (50 g/l, 20 °C) Suspension
- Melting Point: approx. 1,700 °C
- Boiling Point: not determined
- Flash Point: Not applicable Solid
- Evaporation Rate: Not applicable
- Flammability (solid, gas): Not applicable

Explosive limit - upper (%): Not applicable
Explosive limit - lower (%): Not applicable
Vapor pressure: Not applicable
Vapor density (air=1): Not applicable
Density: approx. 2 g/cm³ (20 °C)
Relative density: No data available.
Solubility (Water): > 1 mg/l
Solubility (other): No data available.
Partition coefficient (n-octanol/water): Not applicable
Self Ignition Temperature: Not applicable
Decomposition Temperature: > 2,000 °C
Kinematic viscosity: Not applicable solid
Dynamic viscosity: Not applicable solid

Other information
- Explosive properties: Not to be expected in view of the structure
- Oxidizing properties: Not to be expected in view of the structure
- Minimum ignition energy: Not applicable
- Minimum ignition temperature: Not applicable

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: No specific hazards are known.
Incompatible Materials: None known.
Hazardous Decomposition Products: None known.

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
- Dermal Product: LD 50 (Rabbit): > 5,000 mg/kg comparable product
- Inhalation Product: LC0 (Rat): 0.69 mg/l No deaths occurred., comparable product, Based on available data, the classification criteria are not met.

Repeated dose toxicity Product: No data available.

Skin Corrosion/Irritation Product: not irritating analogous OECD method (Rabbit): not irritating comparable product Based on available data, the classification criteria are not met.

Serious Eye Damage/Eye Irritation Product: not irritating Rabbit: not irritating comparable product Based on available data, the classification criteria are not met.

Respiratory or Skin Sensitization Product: Not known.

Carcinogenicity Product: Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA. 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: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: no evidence of reproductive toxic properties

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

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.

Aquatic Invertebrates
Product: EC 50 (Daphnia magna, 24 h): > 1,000 mg/l The reported toxic effects relate to the nominal concentration.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.
Persistence and Degradability

**Biodegradation**

**Product:** The methods for determining biodegradability are not applicable 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:** Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.

**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
Not classified

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

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide, chemically prepared (CAS 112926-00-8 resp. 7631-86-9)</td>
<td>None present or none present in regulated quantities.</td>
</tr>
</tbody>
</table>

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
Chemical Identity
Silicon dioxide, chemically prepared (CAS 112926-00-8 resp. 7631-86-9)
US. Massachusetts RTK - Substance List

Chemical Identity
Silicon dioxide, chemically prepared (CAS 112926-00-8 resp. 7631-86-9)

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Silicon dioxide, chemically prepared (CAS 112926-00-8 resp. 7631-86-9)

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

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Reactivity</th>
<th>Special hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

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

Issue Date: 04/10/2019
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.

Disclaimer:
This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.