1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : AEROSIL® R 972
Use of the Substance / Preparation : Silicone rubber
                                  Sealants
                                  Paints and lacquers
                                  Coloured printing inks
                                  Toner
                                  Adhesive
                                  Cosmetics
                                  Coating agent
                                  pesticide

Company : Evonik Corporation USA
          299 Jefferson Road
          Parsippany, NJ 07054-0677
          USA

Telephone : 973-929-8000
Telefax : 973-929-8040

US: CHEMTREC EMERGENCY NUMBER : 800-424-9300
CANADA: CANUTEC EMERGENCY NUMBER : 613-996-6666
Product Regulatory Services : 973-929-8060

2. HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***

Form: powder      Color: white      Odor: odorless

Dust may be irritating to respiratory tract.

POTENTIAL HEALTH EFFECTS

Eye contact
Non-irritating.

Skin Contact
Non-irritating.

Inhalation
May cause irritations of the respiratory tract.
Ingestion
No hazard expected in normal use.

3. COMPOSITION/INFORMATION ON INGREDIENTS
Chemical Name: Silicic acid, ethyl ester

Information on ingredients / Hazardous components
Silane, dichlorodimethyl-, reaction products with silica
CAS-No. 68611-44-9 Percent (Wt./ Wt.) 100 %

Other information
This material is classified as hazardous under OSHA regulations.

4. FIRST AID MEASURES

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

Skin contact
Wash off with soap and plenty of water.

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
If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention.

5. FIRE-FIGHTING MEASURES

Flash point not applicable
Lower explosion limit not determined
Upper explosion limit not determined
Autoignition temperature > 600 °C
Method: VDI 2263

Suitable extinguishing media
Water spray, foam, CO2, dry powder.

Extinguishing media which must not be used for safety reasons
Do not use full-force water jet in order to avoid dispersal and spread of the fire.
Specific hazards during fire fighting
May be released in case of fire: carbon monoxide and carbon dioxide.

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
Wear personal protective equipment.

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

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

Additional advice
Avoid dust formation.

7. HANDLING AND STORAGE

Handling

Safe handling advice
Use with adequate ventilation.

Advice on protection against fire and explosion
Take precautionary measures against static discharges.

Dust explosion class
1 m³ vessel = not dust explosive
VDI Guideline 2263 sheet 1

Storage

Requirements for storage areas and containers
Keep containers tightly closed in a dry, cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component occupational exposure guidelines

- Dust
  CAS-No.
  Control parameters 3 mg/m³
  Respirable particles.  Time Weighted Average (TWA):(ACGIH)
Personal protective equipment

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.

Hand protection
Use impermeable gloves.

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

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.

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.

Protective measures
Handle in accordance with good industrial hygiene and safety practices.
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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
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<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
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<tr>
<td>Color</td>
<td>white</td>
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<tr>
<td>Odor</td>
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</tr>
<tr>
<td>Physical state</td>
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</table>

Safety data
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>3.6 - 5.5 (40 g / l) (20 °C)</td>
</tr>
<tr>
<td>Medium</td>
<td>water / methanol</td>
</tr>
<tr>
<td>1: 1 in suspension</td>
<td></td>
</tr>
</tbody>
</table>

Melting point/range  | not applicable                 |
Boiling point/range | not applicable                 |
Flash point          | not applicable                 |
Flammability         | not applicable                 |
Autoignition temperature: | > 600 °C                        |
### Method:

**Autoinflammability**
not applicable

**Lower explosion limit**
not determined

**Upper explosion limit**
not determined

**Minimum ignition energy**
not applicable

**Vapor pressure**
not applicable

**Density**
ca. 2.2 g/cm³ (20 °C)

**Tapped density**
ca. 50 g / l

**Method:**
DIN / ISO 787/11

**Water solubility**
> 1 mg/l

**Partition coefficient (n-octanol/water)**
not applicable

**Viscosity, dynamic**
not applicable

### 10. STABILITY AND REACTIVITY

**Conditions to avoid**
With temperatures > 300 °C, hydrophobicity is lost.

**Hazardous decomposition products**
Carbon monoxide, carbon dioxide (CO2)

### 11. TOXICOLOGICAL INFORMATION

**Product  Acute oral toxicity**
LD50 Rat: > 5000 mg/kg
Method: literature

**Product  Acute inhalation toxicity**
LC0 Rat: 0.477 mg/l / 4 h
Method: analogy OECD (maximum concentration attainable in experiments)

**Product  Skin irritation**
Rabbit
Not irritating.
Method: literature

**Product  Eye irritation**
Rabbit
Not irritating.
Method: literature

**Product  Repeated dose toxicity**
Oral
No negative effects.

Inhalation
No irreversible changes and no indication of silicosis.
Component Gentoxicity in vitro
Silane, dichlorodimethyl-, reaction products with silica
68611-44-9
Ames test S. typhimurium / E. coli
negative
Method: literature

Product Carcinogenicity
No negative effects.

Product Toxicity to reproduction
No negative effects.

Product Human experience
Silicosis or other product specific illnesses of the respiratory tract have not been reported.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish
LC50 (Brachydanio rerio): > 10000 mg/l / 96 h
Method: OECD 203

Toxicity to daphnia
EC50 Daphnia magna: > 10000 mg/l / 24 h
Method: OECD 202

Toxicity to algae
IC 50 scenedesmus subspicatus: > 10000 mg/l / 72 h
Method: OECD 201

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL
Advice on disposal
Waste must be disposed of in accordance with federal, state, provincial and local regulations.

14. TRANSPORT INFORMATION

Transport/further information
Not dangerous according to transport regulations.

15. REGULATORY INFORMATION

US Federal Regulations

OSHA
If listed below, chemical specific standards apply to the product or components:
• None listed

Clean Air Act Section (112)
If listed below, components present at or above the de minimus level are hazardous air pollutants:
• None listed

CERCLA Reportable Quantities
If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:
• None listed

SARA Title III Section 311/312 Hazard Categories
The product meets the criteria only for the listed hazard classes:
• Acute Health Hazard

SARA Title III Section 313 Reportable Substances
If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
• None listed

Toxic Substances Control Act (TSCA)
If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:
• None listed

State Regulations
The Listing requirements of the Right to Know (RTK) legislation varies by state. All information for NJ, PA, MA and other states can be derived from the listing of hazardous and non-hazardous components in section 2 and 15 of this MSDS.

California Proposition 65
A warning under the California Drinking Water Act is required only if listed below:
• None listed
International Chemical Inventory Status

Unless otherwise noted, this product is in compliance with the inventory listing of the countries shown below. For information on listing for countries not shown, contact the Product Regulatory Services Department.

- Europe (EINECS/ELINCS) Listed/registered
- USA (TSCA) Listed/registered
- Canada (DSL) Listed/registered
- Australia (AICS) Listed/registered
- Japan (MITI) Listed/registered
- Korea (TCCL) Listed/registered
- Philippines (PICCS) Listed/registered
- China Listed/registered
- New Zealand Listed/registered

16. OTHER INFORMATION

HMIS Ratings

<table>
<thead>
<tr>
<th>Rating</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Health</td>
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<tr>
<td>Flammability</td>
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</tr>
<tr>
<td>Physical Hazard</td>
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</table>

NFPA Ratings

<table>
<thead>
<tr>
<th>Rating</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
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<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
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</tbody>
</table>

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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.