

MATERIAL SAFETY DATA SHEET

AEROSIL® 90



Material no.		Version	2.21 / US
Specification	132780	Revision date	10/15/2013
Order Number		Print Date	03/20/2014
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : AEROSIL® 90
Use of the Substance / Preparation : Anticaking agents
Antiblocking agents
Carrier

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

Possibly irritating.

Skin Contact

May cause skin irritation.

Inhalation

May cause irritations of the respiratory tract.

Ingestion

No hazard expected in normal use.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on ingredients / Hazardous components

Silicon dioxide, chemically prepared			
CAS-No.	112945-52-5	Percent (Wt./ Wt.)	100 %

Other information

This material is classified as hazardous under OSHA regulations.

A new CAS , 112945-52-5, has been assigned to amorphous, fumed silica to distinguish it from crystalline silica. According to the EPA, this product meets TSCA requirements and is listed on the TSCA inventory as silica with CAS 7631-86-9.

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 applicable
Upper explosion limit	not applicable
Autoignition temperature	not applicable

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

None known.

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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.

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.

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

- **Silicon dioxide, chemically prepared**

CAS-No.	112945-52-5	
Control parameters	20millions of particles per cubic foot of air	Time Weighted Average (TWA):(Z3)
	0.8 mg/m3	Time Weighted Average (TWA):(Z3)
	The exposure limit is calculated from the equation, $80/(\%SiO_2)$, using a value of 100% SiO ₂ . Lower values of % SiO ₂ will give higher exposure limits.	
	20millions of particles per cubic foot of air	Time Weighted Average (TWA):(Z3)
	0.8 mg/m3	Time Weighted Average (TWA):(Z3)
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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

Form	powder
Color	white
Odor	odorless
physical state	solid

Safety data

pH	3.7 - 4.7 (40 g / l) (20 °C) (suspension)
Melting point/range	ca. 1700 °C
Boiling point/range	not applicable
Flash point	not applicable
Flammability	not applicable
Autoignition temperature:	not applicable

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Autoinflammability	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Minimum ignition energy	not applicable
Vapor pressure	not applicable
Density	ca. 2.2 g/cm ³ (20 °C)
Tapped density	ca. 80 g / l Method: DIN / ISO 787/11
Water solubility	hardly soluble
Partition coefficient (n-octanol/water)	not applicable
Viscosity, dynamic	not applicable

10. STABILITY AND REACTIVITY

Conditions to avoid	Operations that create dust.
Hazardous decomposition products	None known.
Thermal decomposition	> 2000 °C
Further information	Stable under normal conditions. Product will not undergo hazardous polymerization.

11. TOXICOLOGICAL INFORMATION

Product Acute oral toxicity	LD50 Rat: > 10000 mg/kg Method: literature
Product Acute inhalation toxicity	LC0 Rat: 0.139 mg/l / 4 h Method: literature (maximum concentration attainable in experiments) No deaths occurred.
Product Acute dermal toxicity	LD50 Rabbit: > 5000 mg/kg Method: literature
Product Skin irritation	Rabbit Not irritating. Method: literature
Product Eye irritation	Rabbit Not irritating. Method: literature

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Product Repeated dose toxicity	Oral No negative effects.
	Inhalation No irreversible changes and no indication of silicosis.
Product Gentoxicity in vitro	no evidence of mutagenic effects literature
Product Gentoxicity in vivo	No evidence of mutagenic effects reported in literature.
Product Mutagenicity assessment	No evidence of mutagenic effects reported in 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

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Advice on disposal	Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.
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14. TRANSPORT INFORMATION

Transport/further information

Not dangerous according to transport regulations.

15. REGULATORY INFORMATION

US Federal Regulations

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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

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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

16. OTHER INFORMATION

HMIS Ratings

Health :	1
Flammability :	0
Physical Hazard :	0

NFPA Ratings

Health :	1
Flammability :	0
Reactivity :	0

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.