



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE PRODUCT AND SUPPLIER

1.1 Product identifier

Product Name: Silica Fume

Other names: Microsilica、Densified Silica Fume、Undensified Silica Fume

Type of product: Solid

CAS No.: 69012-64-2

Einecs No.: 273-761-1

1.2 Applications

Include: Concrete, Cementitious Repair Products, Concrete Tile & Panels, FCB, Concrete Roofing & Wallboards, Shotcrete, Oil Well Grouting, Polymers & Elastomers, Repair Products, Refractory & Ceramics, Self-Consolidating Concrete and Ultra High Performance Concrete.

1.3 Details of the supplier

Supplier name: HENAN SUPERIOR ABRASIVES IMPORT AND EXPORT CO., LTD

Address: No.806, 8th Floor, 8th Building, No.68 Zhengtong Road, Erqi District Zhengzhou Henan, China

Tel: +86-371-6389 8989

Fax: +86-371-6389 8989

Email: info@superior-abrasives.com

Website: hsamaterial.com

1.4 Emergency telephone number(s)

For information, call 86-371-6389 8989 (Business Hours: 8:30am-5:30pm Beijing Time)

Call a poison center or doctor/physician in your country.

Section 2: COMPOSITION/INFORMATION ON INGREDIENTS

Item	wt. %	CAS Registry#
Silicon Dioxide (SiO ₂) amorphous	>85%	14808-60-7
Carbon (C)	<5%	7440-44-0
Aluminum Oxide (Al ₂ O ₃)	<0.8%	1344-28-1
Magnesium Oxide (MgO)	<3%	1309-48-4
Calcium Oxide (CaO)	<0.8%	1305-78-8
Iron Oxide(Fe ₂ O ₃)	<1%	1309-37-1
Sodium Oxide (Na ₂ O)	<1%	1313-59-3
Potassium Oxide (K ₂ O)	<1.2%	12136-45-7
Silicon Dioxide (SiO ₂) Crystalline	<0.5%	14808-60-7

Above is an Elemental analysis of the Silica Fume(Microsilica). The manufacturer can provide a more detailed analysis, including other trace elements.

Section 3: HAZARDS IDENTIFICATION

Classification of the substance: The product does not meet the criteria for hazard classification in accordance with the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS,6threv.).

Hazard pictogram: N/A (not applicable)

Signal word: N/A (not applicable)

Hazard statements: N/A (not applicable)

Precautionary statements: N/A (not applicable)

The product is unlikely to cause harmful effects when handled and stored as advised.

Section 4: FIRST AID MEASURES



Inhalation: Remove exposed person from dusty area to fresh air.

Skin Contact: Wash skin with water and/or a mild detergent.
Moisturizing cream or lotion may be applied to avoid skin dryness.

Eye Contact: Flush with water/saline solution to ensure no particles remain in the eye.
See a physician on the persistent feeling of discomfort.

Ingestion: Seek immediate medical advice.

First aid facilities: Eyewash facilities should be available.

Notes to physician: Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Silica Fume(Microsilica) is not combustible and the dust presents no danger of explosion.
Extinguishing media: Not applicable (if involved in fire: cool with water).

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Wear personal protective equipment (See section 8). Keep unprotected persons away.
Contain spills or leaks. Transfer spilled material into an appropriate container. Collect spilled material using a vacuum cleaner or wash it down with water. Do not use compressed air to maneuver dried material. Avoid generation of airborne dust.

Section 7: HANDLING AND STORAGE

HANDLING: Avoid handling that generates airborne dust. See Section 8 "Exposure Controls and Personal Protection".

STORAGE: Store in the original, labelled, shipping container. Store in an area that is dry, well-ventilated. Protect product from contact with water, including humidity. Prevent rainwater and groundwater from reaching the storage area. Store away from hydrofluoric acid and fluorides.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use local exhaust and general dilution ventilation or other suppression methods to maintain dust levels below exposure limits.

Personal Protective Equipment (PPE):

Respiratory Protection: Under ordinary, well-ventilated circumstances no respiratory protection is required. If exposure levels are exceeded wear a NIOSH approved respirator that is properly fitted and is in good conditions.

Eye Protection: Wear ANSI approved glasses or safety goggles when handling dust or wet Silica Fume(Microsilica) to prevent contact with eyes.
Wearing contact lenses when using Silica Fume(Microsilica), under dusty conditions, is not recommended.

Skin protection: Gloves are recommended.
Do not rely on barrier creams, in place of impervious gloves.



Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	:	Ultrafine amorphous powder (respirable dust), dust forms agglomerates
Color	:	Light to dark gray
Odor	:	Odorless
Solubility (Water)	:	Insoluble to slightly soluble
Melting Point (°C)	:	Approx. 1230
Solubility (Organic solvents)	:	Insoluble to slightly soluble
Specific Gravity (water=1)	:	2.2-2.3
Particle size (µm)	:	Approx 0.3

Section 10: STABILITY AND REACTIVITY

STABILITY	:	Silica Fume(Microsilica) is stable and does not react with water
MATERIALS TO AVOID	:	Avoid contact with hydrofluoric acid and fluorides
HAZARDOUS REACTIONS	:	Silica Fume(Microsilica) reacts with hydrofluoric acid (HF) forming toxic gas (SiF ₄)
HAZARDOUS DECOMPOSITION PRODUCTS	:	Prolonged heating above 500°C (930°F) will convert amorphous silica to the crystalline phases.

Section 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:

- INGESTION : Dust from Silica Fume(Microsilica) may irritate and dehydrate mucous membranes.
- INHALATION : Dust from Silica Fume(Microsilica) may irritate and dehydrate mucous membranes.
- SKIN CONTACT : Dust from Silica Fume(Microsilica) may cause irritation and dehydration.
- EYE CONTACT : Dust from Silica Fume(Microsilica) may cause irritation and dehydration.

CHRONIC EFFECTS:

Silica Fume(Microsilica) dust may contain impurities of crystalline quartz (<0.5%). Inhalation of Silica Fume(Microsilica) dust is considered to entail minimal risk of pulmonary fibrosis (silicosis). Cases of lung fibrosis have been reported among workers exposed to amorphous silica in the ferrosilicon industry. The lung changes have either been transient or may have been caused by simultaneous exposure to crystalline silica (quartz). Heating Silica Fume(Microsilica) above 500°C can result in the formation of crystalline SiO₂-modifications (Cristobalite/Tridymite) which may cause silicosis. The formation rate increases with increasing temperature. Periodic health examinations of persons exposed to the dust are recommended to include: pulmonary examination, spirometry and possibly x-ray.

Section 12: ECOLOGICAL INFORMATION

Silica Fume(Microsilica) is not characterized as dangerous for the environment.

Section 13: DISPOSAL CONSIDERATIONS

Reuse all products when possible. Dispose of waste Silica Fume(Microsilica) according to applicable federal, state and local rules for non-hazardous solid waste materials. No special precautions are necessary during repacking.

Silica Fume(Microsilica) is not a listed RCRA Hazardous Wastes (40CFR 261).

Section 14: TRANSPORT INFORMATION

- IMDG/IMO : Not regulated
- DOT (DEPARTMENT OF TRANSPORTATION)
- Proper Shipping Name : Not regulated
- Hazard Class : Not regulated

I.D. Number and Initials : Not regulated
Packing Group : Not regulated
Label(s) : Not regulated

Section 15: REGULATORY INFORMATION

OSHA - Hazardous by definition of hazardous communication standard (29 CFR 1910.1200)

TSCA (Toxic Substance Control Act):

Components of this product are listed on the TSCA Inventory

CERCLA (Comprehensive Response Compensation, and Liability Act):

Silica Fume(Microsilica) is not listed in 40 CFR 302.4

RCRA (Resource Conservation/Recovery Act): Silica Fume(Microsilica) is not a listed hazardous waste.

SARA TITLE III (Superfund Amendments and Reauthorization Act):

311/312 Hazard Categories: Immediate Health, Delayed Health.

313 Reportable Ingredients: None.

CALIFORNIA PROPOSITION 65:

This product contains chemical(s) known to the State of California to cause cancer: Silica, crystalline

Section 16: OTHER INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

Last updated: 20.06.2020

End of MSDS