



Material Safety Data Sheet (MSDS)

Product Name: Micro Silica

Grain Size: < 5 µm

CAS Number: 69012-64-2

Formula: SiO₂

Recommended Use: Pozzolanic additive for concrete, refractory, oil well grouting, and industrial applications

1. Identification

- **Product Name:** Micro Silica
- **Trade Name:** Silica Fume
- **Supplier:** Basekim
- **Use:** Construction (concrete admixture), refractory, oil & gas

2. Hazard Identification

- **Classification:**
Not classified as hazardous under GHS criteria in bulk form.
- **Hazard Statements:**
 - Prolonged inhalation of fine silica dust may cause silicosis.
 - May cause mechanical irritation to eyes or skin.

3. Composition / Information on Ingredients

Component	CAS Number	% by Weight
Amorphous Silicon Dioxide	69012-64-2	>92%
Aluminum Oxide (Al ₂ O ₃)	1344-28-1	<1.0%
Iron Oxide (Fe ₂ O ₃)	1309-37-1	<0.5%
Magnesium Oxide (MgO)	1309-48-4	<0.2%
Moisture	—	≤1.5%

4. First Aid Measures

- **Inhalation:** Remove from exposure; seek fresh air and medical attention if symptoms persist.
- **Skin Contact:** Wash with soap and water.
- **Eye Contact:** Rinse thoroughly with water for at least 15 minutes.
- **Ingestion:** Rinse mouth; not expected to be toxic.

5. Fire-Fighting Measures

- **Flammability:** Non-flammable
- **Extinguishing Media:** Not applicable
- **Hazards from Combustion:** None



- **Protective Equipment:** Use standard firefighting protection

6. Accidental Release Measures

- Avoid generating dust.
- Use industrial vacuum or damp sweeping to clean.
- Dispose of waste per local regulations.

7. Handling and Storage

- **Handling:** Avoid breathing dust; use in ventilated areas.
- **Storage:** Keep dry and in sealed packaging.

8. Exposure Controls / Personal Protection

- **Occupational Exposure Limit (OEL):**
 - OSHA PEL (TWA): 6 mg/m³ (total dust)
 - ACGIH TLV: 2 mg/m³ (respirable)
- **Engineering Controls:** Local exhaust or dust suppression
- **PPE:**
 - **Respiratory:** NIOSH-approved respirator
 - **Eyes:** Safety goggles
 - **Skin:** Gloves and protective clothing

9. Physical and Chemical Properties

Property	Value
Appearance	Grey/white powder
Odor	Odorless
pH	6.5 – 7.5 (in water)
Melting Point	~1600°C
Density	2.2 g/cm ³
Solubility in Water	Insoluble
Moisture	≤1.5%
Bulk Density	200 – 350 kg/m ³
Loss on Ignition	< 6%

10. Stability and Reactivity

- **Stability:** Stable
- **Incompatible Materials:** Hydrofluoric acid
- **Hazardous Decomposition:** None
- **Polymerization:** Will not occur

11. Toxicological Information



- **Acute Toxicity:** Not applicable
- **Chronic Effects:** May cause silicosis with prolonged inhalation
- **Carcinogenicity:**
 - IARC: Group 3 – Not classifiable (amorphous silica)

12. Ecological Information

- **Environmental Impact:** Not hazardous
- **Mobility:** Low mobility
- **Persistence:** Inert
- **Bioaccumulation:** Not expected

13. Disposal Considerations

- Dispose in compliance with national and local laws.
- Avoid releasing dust into the environment.

14. Transport Information

- **UN Number:** Not regulated
- **Hazard Class:** Not classified
- **Packing Group:** Not applicable
- **Special Precautions:** Avoid airborne dust during transit

15. Regulatory Information

- **GHS Classification:** Not hazardous in packaged form
- **OSHA:** Not specifically regulated
- **REACH/TSCA:** All components listed

16. Other Information

- **Prepared By:** Basekim
- **Disclaimer:** Data is believed accurate but should be independently verified.