



Safety Data Sheet For 102DM, 104OG, &106UM



MISSISSIPPI
S I L I C O N

Section 1

Identification of Product and Supplier

Product Name: Silica Fume

Trade Name(s): Amorphous Silica, Silicon Dioxide, Microsilica,
Corrochem, Micropoz, RED 102 DM, RED 104 OG, RED 106 UM

Distributor:

RED Industrial Products
4 Village Park Dr Suite 110
Grove City PA 16127
Tel: 1-877-733-2281

Product Code: N/A

Emergency Telephone No.: N/A

Product Use: Pozzolan

Restrictions: None identified

Chemical Formula: Varies

Appearance: Light Grey to Medium Grey

Odor: None

Section 2

Hazards Identification

Silica Fume is generally considered a nuisance dust of low toxicity. Use and handling of Silica Fume does not represent a health risk when normal safety rules are observed. Silica Fume when handled and stored in accordance with this document is unlikely to cause harmful effects. It is possible for Silica Fume to contain trace amounts of crystalline silica, which has been shown to cause silicosis, and has been identified by IARC and NTP as a possible human carcinogen.

GHS Classification

Health: Airborne dust generated through the use or handling of the product may result in respiratory tract and/or eye discomfort.

Physical: Material is not known to be a water reactive flammable solid material based on United Nations recognized analytical methods. Dust from this product is non-combustible even when in a dust cloud form and presents no danger of explosion.

OSHA Hazard Category: Not Classified

GHS Category: Not Classified

GHS Pictogram Label(s): None

Signal Word: None

Hazard Statements: None

Precautionary Statements:

- *Avoid breathing dust, as it may irritate and dehydrate mucous membranes.
- *Avoid skin contact—Dust may irritate skin.
- *Avoid eye contact—Dust may irritate and lead to dryness of the eyes.
- *Do not ingest.

Section 3

Composition/Information on Ingredients

| Ingredient | C AS No# | Percent % |
|-----------------------------|------------|-----------|
| Silicon Dioxide - Amorphous | 69012-64-2 | > 85 |
| Carbon | 7440-44-0 | < 6 |
| Iron Oxide | 1309-37-1 | < 2 |
| Aluminum Oxide | 1344-28-1 | < 2 |
| Sodium Oxide | 1313-59-3 | < 2 |
| Potassium Oxide | 12136-45-7 | < 2 |
| Magnesium Oxide | 1309-48-4 | < 2 |
| Calcium Oxide | 1305-78-8 | < 2 |

Manufacturers can provide detailed elemental analysis including other trace elements.

The (wt%) values will change if silica fume is from ferrosilicon production.

Section 4 First Aid Measures

Inhalation: Remove victim of fresh clean air.

Ingestion: Seek immediate medical attention.

Skin Contact: Wash skin with soap and water.

Eye Contact: Flush eyes with water for 15 minutes

**Seek immediate medical attention if any symptoms persist*

Section 5 Firefighting Measures

Silica fume is non-combustible even when in a dust cloud and presents no danger of explosion.

Extinguishing Media: N/A

Special Information: None

Section 6 Accidental Release Measures

Use collection methods that minimize creation of airborne dust. High efficiency vacuuming is recommended to recover spilled dry dust. Place in suitable container for recycling or disposal.

Section 7 Handling and Storage

Handling: Prevent the creation of airborne dust. Wear appropriate personal protective equipment. See OSHA 29 CFR 1910-94 (Ventilation)

Storage: General storage, best in closed containers, ambient air temperature, keep dry.

Section 8 Exposure Controls and Personal Protection

Airborne Exposure Limits:

Based on an 8 Hour TWA:

| <i>Component</i> | <i>OSHA P E L</i> | <i>ACGIH TLV</i> |
|-------------------------------|---|----------------------|
| Silicon Dioxide - Crystalline | <u>50 µg/m</u> (RESP) % SiO ₂ + 2 | 25 µg/m ³ |

Ventilation System:

Local exhaust suggested in any processing areas. Ensure good ventilation.

Personal Respirators (NIOSH/MSHA Approved):

Use an appropriate filtering respirator when any airborne contaminants reach or exceed the Permissible Exposure Limit (PEL). In poorly ventilated areas, such as confined spaces, a self-contained breathing apparatus or a clean air supplied respirator should be worn.

Skin Protection:

Avoid any contact with skin. Wear protective gloves.

Eye Protection:

Avoid any contact with eyes. Wear appropriate eye protection, and have access to eye wash stations.

Other Control Measures:

Do not breathe respirable dusts.

Section 9**Physical and Chemical Properties**

| | |
|---|--|
| Physical State: Amorphous submicron powder - dust has a tendency to agglomerate | Melting Point: 1200 C - 1300 C |
| Odor: None | Solubility Solvents: Insoluble to slightly soluble in organic solvents |
| Solubility: Insoluble in water | Flash Point: Not available |
| Specific Gravity: 2.2-2.5 | Flammability (solid): No ignition |
| pH: 6.0—9.0 | Particle Size: Approx. 0.4µm |
| % Volatiles by Volume @ 21C (70F): Not available | Vapor Pressure (mm Hg): Not available |
| Bulk Density: Approx. 8 to 48 lb/ft ³ or 128-769 kg.m ³ | Evaporation Rate (BuAc = 1): Not available |

Section 10 **Stability and Reactivity**

Stability: Stable under normal temperatures.

Incompatibilities: Soluble in hydrofluoric.

Hazardous Decomposition Products: Heating at temperatures above 500 °C (930 °F) for prolonged time period will convert amorphous silica to crystalline phases.

Section 11 **Toxicological Information**

Acute Effects: No data available

Chronic Effects: Silica Fume is generally considered a nuisance dust of low toxicity consequently it is considered to pose minimal risk of pulmonary fibrosis (silicosis). Avoid prolonged exposure to Silica Fume dust concentrations above recommended exposure limits, unless the protective equipment is used.

It is possible for Silica Fume to contain trace amounts of crystalline silica, which has been shown to cause silicosis, and has been identified by IARC and NTP as a possible human carcinogen.

Heating Silica Fume at temperatures above 500 C (930 F) for prolonged periods will convert amorphous silica to crystalline phases Cristobalite and Tridymite that may cause silicosis. Increased temperatures will increase the formation rate of these phases.

Section 12 **Ecological Information**

Environmental Fate: No adverse effects are expected. Silica Fume is not considered dangerous to the environment.

Eco-toxicological Fate: Not currently known

Section 13 **Disposal Considerations**

Recovered material should be recycled, if possible.

Ensure the material is disposed of in accordance with all Federal, State and Local regulations.

Section 14 Transport Information

| | | | |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| DOT 49 C FR | IATA Air | IMDG Vessel | ADR |
| Not Regulated for Transportation | Not Regulated for Transportation | Not Regulated for Transportation | Not Regulated for Transportation |

Classification: National Motor Freight Classification (NMFC): 55

Section 15 Other Regulatory Information

SARA 312/313 (RTK): Not Applicable

SARA 313: This product contains no chemicals subject to the SARA 313 supplier notifications requirements.

CERCLA: No CERCLA chemicals exist in this product above a reportable concentration

TSCA: All chemicals in this product are compliant with TSCA 2019 active commerce regulations.

TSCA Section 12(b) Export Notification: There are no TSCA 12(b) chemicals in this product.

California Proposition 65: This product may contain crystalline silica a chemical known in the State of California to cause cancer, birth defects, or other reproductive harm. It is possible for Silica Fume to contain trace amounts <0.05% of crystalline silica.

Section 16 Other Information

| | |
|-------------------------------|--|
| NFPA Ratings <i>estimated</i> | HMIS Ratings: |
| Health - 0 | Health - 1 |
| Flammability - 0 | Flammability - 0 |
| Reactivity - 0 | Physical Hazard - 0 |
| | Personal Protection — E (See Section VIII) |

All information, recommendations, and suggestions, appearing herein concerning our products are based on data believed to be accurate and reliable. Since the actual use by others is beyond our control, it is the user's responsibility to determine the suitability of the product for its use and to adopt such safety precautions as may be necessary. Since the conditions of use are not under our control, Mississippi Silicon disclaims all liability with respect to the use of any material supplied by Mississippi Silicon.