



# SAFETY DATA SHEET

## 1. Substance and Source Identification

**Product Name:** Norchem Silica Fume (Dry Powder)

**Product Uses or Application:** Cementitious Mixtures

**Company**

**Information:**

Norchem, Inc.  
985 Seaway Drive  
Fort Pierce, FL 34949  
772-468-6110  
772-468-8702  
[http:// www.norchem.com](http://www.norchem.com)

**Plant Locations:**  
Alloy, WV  
Beverly, OH  
Bridgeport, AL  
Niagara Falls, NY  
Selma, AL

**Telephone:**

**Fax:**

**Website:**

**Emergency**

**Telephone:**

CHEMTREC: 1-800-424-9300

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## 2. Hazards Identification

**Classification:** Does not meet the criteria of the UN Globally Harmonized System (GHS) for hazard classification.

**Physical Hazard:** Not classified

**Health Hazard:** Not classified

**Label Elements:**

**Symbol:** No Symbol

**Signal Word:** No Signal Word

**Hazard Statement (s):** Not applicable.

**Precautionary Statement(s)** Not applicable.

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## 3. Composition/Information on Ingredients

**Substance:** Silica Fume

**Synonyms:** Amorphous Silica, Silicon Dioxide, Microsilica, Corrochem, Micropoz.

**CAS No:** 69012-64--2

**EINECS No:** 273-761-1

Silica Fume may contain trace amounts (<0.05%) of crystalline silica (quartz), which has been shown to cause silicosis, and has been identified by IARC and NTP as a possible human carcinogen.

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## 4. First Aid Measures

<b>Inhalation:</b>	If inhaled to excess remove exposed person to fresh air. If necessary, seek medical attention.
<b>Skin Contact:</b>	Wash skin with mild soap and water.
<b>Eye Contact:</b>	Flush eyes with water and carefully rinse under the eyelids. If necessary, seek medical attention
<b>Ingestion:</b>	Obtain first aid or medical assistance immediately.
<b>Most Important Symptoms/Effects, Acute and Delayed:</b>	Dust may result in irritation.

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## 5. Fire Fighting Measures

<b>Fire and Explosion Hazards:</b>	Silica fume is non-combustible and presents no danger of explosion
<b>Extinguishing Media:</b>	N/A, Use extinguishing agents appropriate for surrounding fire
<b>Protective Equipment for Fire Fighters:</b>	Wear NIOSH approved self-contained breathing apparatus (SCBA)
<b>NFPA Ratings:</b>	0 = Minimal: 1 = Slight: 2 = Moderate: 3 = Serious: 4 = Severe
	Health = 0                      Fire = 0                      Reactivity = 0

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## 6. Accidental Release Measures

<b>Personal Precautions, Protective Equipment and Emergency Procedures:</b>	Use 42 CFR 84 NIOSH/MSHA approved respirators when airborne concentrations equal or exceed the Permissible Exposure Limit.
<b>Methods and Materials for Containment and Cleanup:</b>	Collect using methods that minimize creation of airborne dust. High efficiency vacuum cleaning is recommended to recover spilled material. Place in suitable container for recycling or disposal. Handle with adequate ventilation for dust.

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## 7. Handling and Storage

<b>Safe Handling Precautions:</b>	Avoid generating dust. Handle with adequate ventilation for dust.
<b>Storage:</b>	Best in closed containers, ambient air temperature, keep dry.

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## 8. Exposure Controls and Personal Protection

**Exposure Limits:** No occupational exposure limits have been established for this material.

<b>Components:</b>	<b>CAS Registry #</b>	<b>OSHA-PEL TWA</b>	<b>ACGIH-TWA</b>
Silica, Amorphous Silica Fume	69012-64-2		TLV Withdrawn due to insufficient data
Silica – Crystalline $\alpha$ -Quartz	14808-60-7	0.05 mg/ m <sup>3</sup>	0.025 mg/m <sup>3</sup>

<sup>R</sup> Measured as respirable fraction of the aerosol.

\*Total Dust

\*\*Respirable dust

There is no hazard classification for the amount of respirable crystalline silica in the product because when measured by X-Ray diffraction the level is below 0.1%

**Engineering Controls:** Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposures below PELs or TLVs in processing areas.

**Personal Protection:** In accordance with OSHA 29 CFR 1910.132 subpart I, wear appropriate Personal Protective Equipment (PPE) to minimize exposure to this material.

**Respiratory Protection:** If workplace conditions warrant a respirator OSHA 29CFR 1910.134 must be followed. Refer to NIOSH 42 CFR 84 for approved respirators when airborne concentrations equal or exceed the Permissible Exposure Limits.

**Eye/Face Protection:** Wear tightly fitting safety goggles when a risk assessment indicates this is necessary.

**Skin/Body Protection:** Choose body protection in relation to the task being performed and the risks involved and should be approved by a specialist. Chemical-resistant gloves should be worn at all times when handling chemicals.

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## 9. Physical And Chemical Properties

<b>Physical State:</b>	Amorphous sub-micron powder – dust has a tendency to agglomerate		
<b>Color:</b>	Light to medium gray	<b>Odor:</b>	None
<b>Melting Point:</b>	1200°C - 1300°C*	<b>Specific Gravity:</b>	2.2 – 2.50 Water = 1.0
<b>pH:</b>	6.0 to 9.0	<b>Particle Size:</b>	Approx. 0.4 $\mu$ m
<b>Solubility in Water:</b>	Insoluble		
<b>Bulk Density:</b>	Approx. 8 to 48 lb./ft <sup>3</sup> or 128-769 kg/m <sup>3</sup>		
<b>Solubility Solvents:</b>	Insoluble to slightly soluble in organic solvents		

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## 10. Stability and Reactivity

<b>Conditions to avoid:</b>	See Below
<b>Substances to avoid:</b>	Hydrofluoric acid (HF)
<b>Hazardous reactions:</b>	Silica fume is soluble in hydrofluoric acid (HF) and can form toxic gas (SiF <sub>4</sub> ).
<b>Decomposition products:</b>	Heating at temperatures above 500°C (930°F) for prolonged time periods will convert amorphous silica to crystalline phases.

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## 11. Toxicological Information

**Route of Exposure:** Inhalation: X Skin: X Ingestion: N/A Eyes: X

### Acute Toxicity:

**Inhalation:** Airborne Silica Fume dust generated by the use or handling of this product may result in respiratory tract irritation.

**Ingestion:** Silica Fume dust may irritate and dehydrate throat and mouth.

**Eye Contact:** Silica Fume dust may cause eye mechanical irritation and dryness.

**Skin Contact:** Silica Fume dust may cause exposed skin mechanical irritation.

### 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 the recommended exposure limits, unless the protective equipment is used.

It is possible for Silica Fume to contain trace amounts (<0.05%) of crystalline silica, which has been shown to cause silicosis, and has been identified by IARC and NTP as a Positive/Known human carcinogen.

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

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## 12. Ecological Information:

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

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## 13. Disposal Considerations:

Dispose of waste in accordance with applicable Federal, State and Local regulations.

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## 14. Transport Information:

**DOT** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**Special Precautions for user:** None

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:** Not classified

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## 15. Regulatory Information:

**SARA TITLE III:** Section 302/304 (extremely hazardous substances) Not regulated

Sections 311/312 Hazardous Categories (40 CFR 370.21)

Acute Health: No  
Chronic Health: No  
Fire: No  
Reactive: No  
Pressure: No

Section 313 This product contains no chemicals subject to the supplier notification requirements. Not regulated

**CERCLA:** Comprehensive Response Compensation and Liability Act (40 CFR 30.4) Not regulated

**TSCA:** CAS #69012-64-2 Listed  
There are no TSCA 12(b) chemicals in this product None

**CEPA (Canadian DSL):** #69012-64-2 is listed on the public Portion of the Domestic Substances List.

**WHMIS:** Not classified

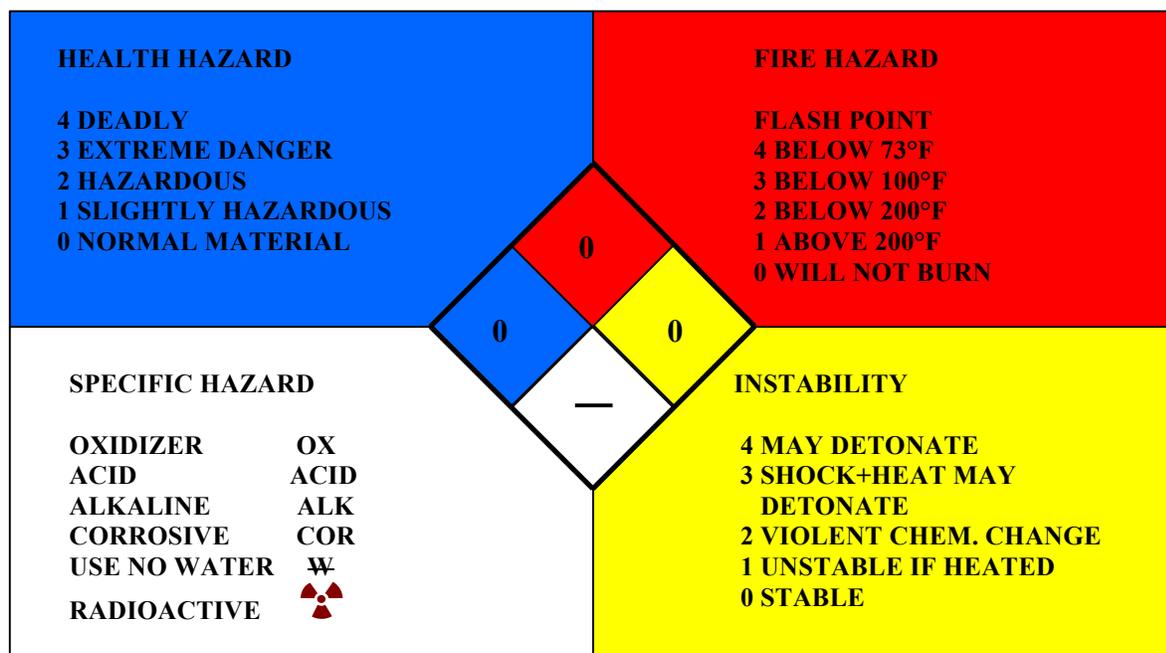
**California Proposition 65:** This product may contain trace amounts < 0.05% of crystalline silica a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

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## 16. Other Information:

The UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS) safety data sheets (SDS) are required only for substances and mixtures that meet the harmonized criteria for physical, health or environmental hazards. Based on Chapter 1.5.2 this product does not fit into these criteria.

## National Fire Protection Association (NFPA) Rating:



## HAZARD RATING SYSTEM:

Hazardous Material Identification System (HMIS)

**HEALTH** = 1  
**FLAMMABILITY** = 0  
**REACTIVITY** = 0  
**PERSONAL PROTECTION** = E – (See section 8)

All information, recommendations, and suggestions in this SDS, concerning our products are based on tests and data believed to be reliable, it cannot be guaranteed. Since the actual use by others is beyond our control it is the user's responsibility to determine the safety, toxicity and suitability for their own use of the product described herein.