

# SILMIM LLC

11521 Allen A Brown Rd,  
Charlotte, NC 28269, USA

## Material Safety Data Sheet Refractory Coating, Colloidal Silica (Rigidizer) MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Colloidal Silica

**CAS#:** 7631-86-9

**RTECS:** VV7310000

**TSCA:** TSCA 8(b) inventory: Silica or Colloidal Silica

**CI#:** Not applicable.

**Synonym:** Silica, Colloidal Silica, Rigidizer, Amorphous Silica, Refractory Coating Colloidal Silica.

**Chemical Name:** Colloidal Silica

**Chemical Formula:** SiO<sub>2</sub>

**Contact Information:**

**Silmim LLC**

11521 Allen A Brown Road,  
Charlotte, NC 28269

US Sales: **1-469-579-8600**

Order Online: [simondstore.com](http://simondstore.com)

Emergency Call : **1-469-579-8600**

### Section 2: Composition and Information on Ingredients

**Compositions:**

Name	CAS#	% by Weight
Colloidal Silica	7631-86-9	30.05
Water	7732-18-5	Balanced

**Toxicological Data on Ingredients:** Colloidal Silica or Rigidizer LD50: Not available. LC50: No available.

### Section 3: Hazards Identification

**Potential Acute Health Effects:** Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

### Section 4: First Aid Measures

**Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

**Skin Contact:**

This compound is not likely to be hazardous by skin contact, but washing the skin with soap and water after use is advisable.

**Serious Skin Contact:** Not available.

**Inhalation:** If large amounts are inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Serious Inhalation:**

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. Seek medical attention.

**Ingestion:** No specific intervention is indicated as the compound is not likely to be hazardous by ingestion. However, if symptoms occur, consult a physician.

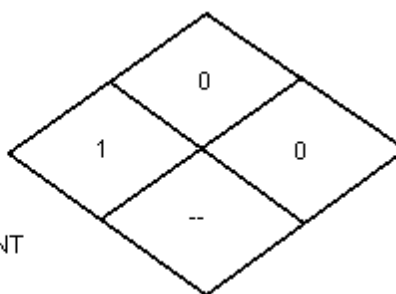
**Serious Ingestion:** Not available.

**\*\* If any of the symptoms persist, seek medical attention\*\***

### Section 5: Fire and Explosion Data



4 -- EXTREME  
 3 -- HIGH  
 2 -- MODERATE  
 1 -- SLIGHT  
 0 -- INSIGNIFICANT



**Flammability of the Product:** Non-Flammable.

**Auto-Ignition Temperature:** None.

**Flash Points:** Non-combustible.

**Flammable Limits:** Not available.

**Products of Combustion:** None.

**Hazardous Decomposition Products:** Decomposition products may include carbon monoxide and carbon dioxide.

**Extinguishing Media:** Use extinguishing media suitable for type of surrounding fire.

**Unusual Fire and Explosion Hazard:** None.

**Special hazards arising from the substance or mixture:** Burning produces irritating, toxic and obnoxious fumes.

**Advice for firefighters:** Self-contained breathing apparatus. Wear suitable protective clothing.

**Protective Equipment:** Wear NIOSH certified respirator together with other protective gear appropriate to the surrounding fire.

### Section 6: Accidental Release Measures

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container.

**Large Spill:** During tear outs, avoid creating airborne dust. Dust suppressing cleaning methods such as wet sweeping or vacuuming should be used to clean the work area. Compressed air or dry sweeping should not be used for cleaning. Refer to local Regulations about compressed air limitations for cleaning. Do not walk through spilled material. Shovel into a container for later disposal. Avoid cleanup procedures that may result in water pollution.

## Section 7: Handling and Storage

**Precautions:**

Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling. Avoid breathing aerosols and mists (also dust from dried-down product). Wash contaminated clothing before reuse and before "MATERIAL" dries.

**Storage:**

Store in original container in a dry area above freezing and in excessive heat. Keep container closed when not in use. This will extend the shelf life.

**Empty containers:** Product packaging may contain residue. Do not reuse.

## Section 8: Exposure Controls/Personal Protection

**Engineering Controls:** Use sufficient ventilation to keep employee exposure below recommended limits. During tear outs, use engineering controls such as local exhaust ventilation, point of generation dust collection, down draft work stations, emission controlling tool designs and materials handling equipment designed to minimize airborne fiber and dust emissions.

**Personal Protection:** Safety glasses, Lab coat, Dust respirator (Be sure to use an approved/certified respirator or equivalent.) and Gloves.

**Personal Protection in Case of a Large Spill:**

Splash goggle, Full suit, Dust respirator, Boots, Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Liquid.

**Odor:** Odorless or Slight.

**Taste:** Tasteless.

**Molecular Weight:** Not applicable.

**Color:** Clear.

**pH (at 25°C):** 9.75

**Boiling Point:**  $\approx 100^{\circ}\text{C}$  (212°F).

**Melting Point:** Not applicable.

**Freezing Point:**  $\approx 0^{\circ}\text{C}$ .

**Specific Gravity:** 1.203 (Water = 1 @ 20 °C).

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Viscosity at 25°C (CP):** 4.10

**Explosive:** Not available.

**Oxidizing:** Not available.

**Partition coefficient:** No data available.

**Solubility:** Miscible in water.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable at normal conditions.

**Instability Temperature:** Not available.

**Reactivity:** Not applicable.

**Chemical stability:** Stable under normal conditions.

**Corrosivity:** Not available.

**Possibility of hazardous reactions:** No Significant Hazard.

**Special Remarks on Corrosivity:** Not available.

**Conditions to avoid:** Direct sunlight. Do NOT allow to freeze.

**Incompatible materials:** Avoid contact with: Sodium chloride.

**Hazardous decomposition products:** None.

**Incompatibility:** Soluble in hydrofluoric acid, phosphoric acid and concentrated alkali.

**Hazardous Polymerization:** Not Applicable.

**Hazardous Decomposition Products:** Decomposition products may include carbon monoxide and carbon dioxide.

**Materials to Avoid:** Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.

## Section 11: Toxicological Information

**Routes of Entry:** Inhalation and Ingestion.

### Toxicity to Animals:

- Colloidal Silica

• Oral LD50: >10,000 mg/kg in rats

The compound is a slight skin irritant and a mild eye irritant. Toxic effects described in animals from single inhalation exposures include upper respiratory irritation, lung congestion, bronchitis, and emphysema. Repeated inhalation exposures at concentrations of 50 or 150 mg/m<sup>3</sup> produced increased lung weights and lung changes. No progressive pulmonary fibrosis was seen, and the observed lung changes were reversible. No adverse effects were observed in this study at 10 mg/m<sup>3</sup>. By ingestion, effects from single high doses include weight loss and irritation. Repeated ingestion exposures produced nonspecific effects such as weight loss and diarrhea. Effects observed in animals exposed by intratracheal instillation for one to two years included fibrosis of the lungs.

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

### Special Remarks on other Toxic Effects on Humans:

Skin corrosion/irritation: May cause irritation to skin. Serious eye damage/irritation: May cause irritation to eyes.

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Other adverse effects:** Not applicable.

**Results of PBT and vPvB assessment:** Not applicable.

**Mobility in soil:** Not determined.

**Bioaccumulative potential:** Does not bioaccumulate.

## Section 13: Disposal Considerations

### Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Do NOT reuse empty containers. Empty containers can be sent for disposal or recycling.

**Waste Management** To prevent waste materials from becoming airborne during waste storage, transportation and disposal, a covered container or plastic bagging is recommended.

**Disposal: This product is not classified as a hazardous waste** according to Federal regulations (40 CFR 261). Check local, regional, state or provincial regulations for applicable requirements for disposal. Any processing, use, alteration or chemical additions to the product, as purchased, may alter the disposal requirements. Under Federal regulations, it is the waste generator's responsibility to properly characterize a waste material, to determine if it is a "hazardous" waste.

## Section 14: Transport Information

### U.S. DEPARTMENT OF TRANSPORTATION (DOT)

The product is not classified as dangerous for carriage.

**BILL OF LADING DESCRIPTION (49 CFR 172.202):** RIGIDIZER (NON-REGULATED).

**UNITED NATIONS (UN) NUMBER:** Not Applicable.

**NORTH AMERICA (NA) NUMBER:** Not Applicable.

## Section 15: Other Regulatory Information

### U.S. FEDERAL REGULATIONS:

CERCLA 103 Reportable Quantity: Bindzil 830 & 1430 is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

### SARA TITLE III:

Hazard Category For Section 311/312: None

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Section 302 Extremely Hazardous Substances (TPQ): None

**EPA Toxic Substances Control Act (TSCA) Status:** All substances contained in this product are listed in the TSCA Chemical Inventory [Section 8 (b)].

### INTERNATIONAL REGULATIONS:

Canadian WHMIS Classification: Not a controlled product.

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL).

**Other Classifications:**

**HMIS (U.S.A.):**

**Health Hazard:** 1

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:** E

**National Fire Protection Association (U.S.A.):**

**Health:** 1

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:**

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

**Section 16: Other Information**

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/06/2010

**Last Updated:** 30/11/2012

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