MATERIAL SAFETY DATA SHEET

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Emergency Phone Numbers:
CHEMTREC: 800/424-9300
POISON CENTER: 800/562-8236
Date of Last Revision: 03-21-97

SECTION 1
PRODUCT IDENTIFICATION

Chemical Name(s) and Synonym(s): Silicon Dioxide
Formula: SiO(2)
Chemical Family: Metal Oxide
Chem Abstract No.: 14808-60-7
TSCA: Product is Listed
Cal. Molecular Weight: 60.08

SECTION 2
INGREDIENTS/SUMMARY OF HAZARDS

Ingredient(s) | CAS # | % | TLV | OSHA PEL
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Silicon Dioxide | 14808-60-7 | 100 | 0.1mg/m³ | 0.1mg/m³

SECTION 3
PHYSICAL DATA

Boiling Point (°C): 2230
Density (gm/cc): 2.6
Vapor Pressure: NA
% Volatile by Volume: NA
Reaction with Water: None
Evaporation Rate: NA
Solubility with Water: Insoluble
Melting Point (°C): 1710
Appearance/Odor: White, no odor.
Other: Readily dissolves in hydrofluoric acid to form the gas silicon tetrafluoride.

SECTION 4
FIRE AND EXPLOSION HAZARD DATA

Flashpoint/Method: NA
Autoignition Temp (°C): NA
Flammability: Non-flammable
Extinguishing Media:  ( ) Water    ( ) Foam    ( ) Class D Extinguisher
       (x) Dry Chemical       (x) CO(2)
       ( ) Other (specify):

Special Fire Fighting Procedures:  Wear a self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes.
FIRE AND EXPLOSION HAZARD DATA (Continued)

Unusual Fire and Explosion Hazards: Material may generate toxic fumes if involved in a fire.

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SECTION 5
HEALTH HAZARD DATA

Toxicity Data
HMIS Hazard Rating:
Health: 3 Flammability: 0
Reactivity: 0 Personal Protection: H

Route(s) of Entry: (x) Inhalation ( ) Skin (x) Ingestion

EFFECTS OF OVEREXPOSURE (acute and chronic)

Inhalation: Prolonged exposure can cause fibrosis of the lung, silicosis.

Dermal/Eye Contact: May cause irritation, inflammation.

Other (specify): No adverse effects since material is insoluble.

Medical Conditions Generally Aggravated By Exposure: Respiratory disorders

CARCINOGENICITY: yes NTP: no IARC MONOGRAPHS: yes OSHA REGULATED: no

The action of crystalline silica on the lungs results in the production of a diffuse, modular fibrosis in which the parenchyma and the lymphatic system are involved. The fibrosis is, to a certain extent, progressive and may continue to increase for several years after exposure is terminated. When the pulmonary reserve is sufficiently reduced, the worker complains of shortness of breath or exertion. This is the first and most common symptom in cases of uncomplicated silicosis. If severe, it may incapacitate the worker for heavy or even light, physical exertion. The most common physical sign of silicosis is a limitation of expansion of the chest. There may be a dry cough, sometimes very troublesome.
EMERGENCY AND FIRST AID PROCEDURES:

Ingestion: Administer 1-2 glasses of milk to induce vomiting. Seek medical attention.

Inhalation: Remove victim to fresh air. Administer oxygen. Seek medical attention.

Skin: Brush material off skin. Wash affected area with soap and water.

Eyes: Flush eyes with water for 15 mins. Seek medical attention.

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SECTION 6
REACTIVITY DATA

Stability: (x) Stable ( ) Unstable
Conditions to avoid: NA

Incompatibility (materials to avoid):
( ) Water ( ) Combustible materials ( ) Strong bases
( ) Reducing Agents ( ) Strong oxidizing materials ( ) Strong acids
(x) Other (specify): ClF3, MnF3, OF2, and F containing compounds

Hazardous Decomposition Products: NA

Hazardous Polymerization: ( ) May occur (x) Will not occur
Conditions to avoid: NA

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SECTION 7
SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled: Wear protective clothing. Isolate the area and insure proper ventilation. Vacuum up spill using a high efficiency unit and place in proper container for disposal.
Waste disposal method: In accordance with regulations.

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SECTION 8
INFORM SPECIAL PROTECTIVE ATTENTION

Respiratory Protection: (Specify type) NIOSH approved respirator.

Ventilation: Local Exhaust: Maintain exposure below TLV for Silicon Mechanical (General): Recommended

Special:

Protective Gloves: Neoprene
Eye Protection: (x) Safety Glasses with Side Shields
( ) Chemical Workers Dust-Proof Goggles (under dusting conditions)
( ) Gas-Tight Goggles or Equivalent
( ) Other (specify):

Other Protective Equipment: Maintain sink, shower and eyewash fountain in work area. Wear protective clothing to prevent contamination of skin.

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SECTION 9
SPECIAL PRECAUTIONS AND TRANSPORTATION REGULATIONS

Precautions To Be Taken In Handling And Storing: Store in tightly closed containers in a cool, dry place. Wash hands and face thoroughly.

Transportation Requirements:
DOT Class: Not Classified
UN Number: Not Classified
IMCO Class: Not Classified
Other:
ND = No Data Found NA = Not Applicable

MATERIAL SAFETY DATA SHEET
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