STANFORD ADVANCED MATERIALS
http://www.samaterials.com

Stanford Advanced Materials
We not only sell products, we provide satisfactions.
72 Fairbanks Suite 100, Irvine, CA 92618, USA
Tel: (949) 407-8904 Fax: (949) 812-6690

Current Version: 2.0
Revision Date: Sep 5, 2012

Material Safety Data Sheet

Identity: Silicon Formula: Si

SECTION I - GENERAL INFORMATION

Manufacturer: Stanford Advanced Materials (SAM)

The information below is believed to be accurate and represents the best information available to SAM. However, SAM makes no warranty, expressed or implied with respect to such information and assumes no liability resulting from its use.

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Molecular weight: 28.086

CAS #	OSHA PEL	ACGIH TLV	%
7440-21-3	$10mg/m^3$	$15mg/m^3$	100

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

Physical States: Solid

Boiling Point: 2355 ℃
N/A Melting Point: 1410 ℃
Evaporation Rate: N/A
Solubility in water: Insoluble

Vapor Pressure (vs. air or mmHg):
Density: $0.34\text{-}0.58g/cm^3$
Flash Point: N/A

Appearance and odor: Fine black powder, odorless

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

Method Used: N/A *Explosive Limits*: LEL: N/A UEL: N/A
Extinguishing Media:

Use dry chemical, sand, foam or carbon dioxide

Special Fire Fighting Procedures:

Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

Unusual Fire and Explosion Hazards:

Based on combustibility tests, silicon is classified as active. Dust can be readily ignited, propagate flame and generate some pressure and/or a mild explosion. Material transfer and dust collection equipment should be constructed of conductive materials and be electrically bonded and grounded.

SECTION V - REACTIVITY DATA

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Stability: Stable
Conditions to Avoid (stability): Avoid generation dusts.
Incompatibility: Violent reactions may occur upon contact with alkali carbonates, strong acids and bases *Hazardous Decomposition or Byproducts:* When heated, silicon will react with water or steam to produce H_2. *Hazardous Polymerization*: Will not occur
Conditions to avoid (hazardous polymerization): N/A

SECTION VI - HEALTH HAZARD DATA

Health Hazards (Acute and Chronic):

Inhalation: Expected to be irritation to the respiratory tract
Ingestion: Not a primary route of exposure
Skin: Not expected to be a strong irritant
Eye: May cause redness, itching, swelling, watering and burning
Carcinogenicity: NTP? N/A IARC Monographs? N/A OSHA Regulated? N/A

Emergency and First Aid Procedures:
Inhalation: Remove victim to fresh air, keep warm and quiet, and give oxygen if breathing is difficult; seek medical attention
Ingestion: Give 1-2 glasses of milk or water and seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person
Skin: Remove contaminated clothing, brush material off skin, wash affected area with mild soap and water, and seek medical attention if symptoms persist
Eye: Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes and seek medical attention

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:
Wear appropriate respiratory and protective equipment specified in section VIII. Isolate spill area, provide ventilation and extinguish sources of ignition. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and
place in a closed container for proper disposal. Take care not to raise dust.
Waste disposal method:
Dispose of in accordance with state, local, and federal regulations.

Hazard Label Information:
AVOID MOISTURE AND WATER. Store in cool, dry area and in tightly sealed container. Wash thoroughly after handling.

SECTION VIII - CONTROL MEASURES

Protective Equipment Summary (Hazard Label Information):
NIOSH approved respirator, impervious gloves, safety glasses, clothes to prevent contact.
Ventilation:
Local Exhaust: To maintain concentration at low
exposure levels. Mechanical (General): Recommended.
Work/Hygienic/Maintenance Practices:
Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Please be advised that N/A can either mean Not Applicable or No Data Has Been Established