

Material Safety Data Sheet

Identity: Silicon carbide

Formula: SiC

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: 40.10

CAS #	OSHA PEL	ACGIH TLV	%
409-21-2	15 mg/m ³	10mg/m ³	100

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Physical States: Solid

Boiling Point: >2000 °C

Melting Point: 2210 °C

Evaporation Rate: N/A

Solubility in water: Insoluble

Specific Gravity (H₂O=1): 3.17 at 20.0 °C

Vapor Pressure (vs. air or mmHg): N/A

Vapor Density (vs. air=1): N/A

Percent Volatile: N/A

Appearance and odor: Bluish black to green iridescent crystals or greenish tan powder, no odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

Method Used: Non-flammable*Explosive Limits:* LEL: N/A

UEL: N/A

Extinguishing Media:

Use suitable extinguishing agent for surrounding material and type of fire

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: Dust may represent a fire or explosion hazard under favorable conditions. However, this is not expected to occur under normal handling conditions.

SECTION V - REACTIVITY DATA

Stability: Stable

Conditions to Avoid (stability): Thermal decomposition

Incompatibility: N/A

Hazardous Decomposition or Byproducts: May produce oxides of carbon and silicon

Hazardous Polymerization: will not occur

Conditions to avoid (hazardous polymerization): N/A

SECTION VI - HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? No Other? No

Health Hazards (Acute and Chronic):

Inhalation of excessive amounts may cause membrane irritation. Repeated or prolonged exposure to dust may lead to pulmonary changes with slight respiratory symptoms in normal people, but may cause extensive fibrosis and progressive disease in persons with tuberculosis. Dust may be *irritating to skin and eyes* due to mechanical action. Persons with preexisting eye or skin conditions or impaired pulmonary function may be more susceptible to the effects of this product.

It is not listed as a carcinogen with NTP, IARC or OSHA

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:

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
