

Material Safety Data Sheet

Identity: Chromium silicide

Formula: CrSi₂

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 we assume no liability resulting from its use.

Section II - Hazardous Ingredients/Identity Information

Chemical Family: Metal silicide*Molecular weight:* 109.17

Hazardous Components	CAS #	OSHA PEL	ACGIH TLV	%
Chromium silicide	12018-09-6	1 mg/m ³	0.5 mg/m ³	

Section III - Physical/Chemical Characteristics

Boiling Point: NA

Density: 4.39 gm/cc

Melting Point: 1570.0°C

Vapor Pressure: NA

Physical States: Solid

Vapor Density: NA

Evaporation Rate: --

Solubility in water: insoluble

Percent Volatile: --

Appearance and odor: Silver-black powder and pieces, no odor.

Section IV - Fire and Explosion Hazard Data:

Flash Point: NA *Autoignition Temp:* N/A *Flammability:* Non-flammable*Extinguishing Media:*

Use: Not applicable. Use suitable extinguishing agent for surrounding materials 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:

None recorded.

Section V - Reactivity Data

Stability: Stable

Conditions to Avoid: None

Incompatibility - Materials to Avoid: None Recorded.

Hazardous Decomposition or Byproducts: None recorded.

Hazardous Polymerization: Will not occur.

Conditions to avoid - Hazardous Polymerization: None

Section VI - Health Hazard Data

Routes of entry: Inhalation

Health Hazards (Acute and Chronic):

Inhalation:

May cause a red, dry throat, coughing and shortness of breath.

Dermal/Eye Contact: May cause abrasive irritation, redness and itching.

Carcinogenicity: NTP: Yes *IARC Monographs:* YES

OSHA Regulated: YES

Emergency and First Aid Procedures:

Inhalation: Remove victim to fresh air; keep warm and quiet; give oxygen if breathing is difficult and seek medical attention if symptoms persist.

Ingestion: Give 1 - 2 glasses of milk or water and induce vomiting; seek medical attention if symptoms persist.

Skin: Remove contaminated clothing; brush material off skin; wash affected area with mild soap and water; seek medical attention if symptoms persist.

Eye: Flush eyes with lukewarm water, lifting upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms persist.

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 - control measures. 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. Use non-sparking tools.

Waste disposal method:

Dispose of in accordance with state, local, and federal regulations.

Hazard Label Information:

Store in cool, dry area. Store in tightly sealed container. Wash thoroughly after handling.

Section VIII - Control Measures

Protective Equipment Summary - Hazard Label Information:

NIOSH/MSHA approved respirator, Impervious gloves, Safety glasses, clothes to prevent skin contact.

Respiratory Protection (Specify Type) - NIOSH - approved dust respirator.

Ventilation:

Local Exhaust: To maintain concentration at low exposure levels.

Mechanical (General): Recommended.

Protective Gloves: Rubber gloves. *Eye Protection:* Safety glasses.

Other Protective Clothing or Equipment: Protective gear suitable to prevent contamination.

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 and smoking. Do not blow dust off clothing or skin with compressed air.