

Material Safety Data Sheet

Identity: Iron Carbide

Formula: Fe₃C

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:

CAS #	OSHA PEL	ACGIH TLV	%
N/A	N/A	N/A	6.7% C 93.3% Fe

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Physical States:

Boiling Point: N/A

Vapor Pressure: (mm hg): N/A

Melting Point: 1837 °C

Vapor Density: (Air=1): N/A

Evaporation Rate: N/A

Specific Gravity (water=1): 7.694

Solubility in water: Insoluble

Appearance and odor: Gray, cubic

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

Flash Point: N/A

Method Used:

Explosive Limits: LEL:

UEL:

Fire Extinguishing Media:

Use powdered graphite powdered sale or powdered limestone.

Do not use water or dry chemicals for extinguishing purposes.

Unusual Fire Explosion Hazard: N/A

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: When heated to decomposition, aluminum fluoride may emit toxic fumes of fluorine. May react violently when impacted in contact with sodium and potassium. May explode when heated with reducing agents.

SECTION V - REACTIVITY DATA

Stability: Stable

Conditions to Avoid (stability):

Incompatibility:

Hazardous Decomposition: Metallic dust or fumes may be produced during welding, burning, grinding, and machining.

Hazardous Polymerization: Will not occur

Conditions to avoid (hazardous polymerization):

SECTION VI - HEALTH HAZARD DATA

Routes of entry: Inhalation? Skin? Eyes? Ingestion? Other?

Health Hazards (Acute and Chronic):

Inhalation:

Acute: Chronic:

Ingestion:

Acute: Chronic:

Skin: Acute:

Chronic:

Eye: Acute:

Chronic:

Target Organ:

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

Medical Conditions Aggravated by Exposure:

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: Do not induce vomiting, seek medical attention immediately.

Skin: Remove contaminated clothing, brush material off skin, wash affected area with mild soap and water, and seek medical attention immediately.

Eye: Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes and seek medical attention immediately.

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. 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. Use with adequate ventilation.

SECTION VIII - CONTROL MEASURES

Protective Equipment Summary (Hazard Label Information):

NIOSH approved respirator, impervious gloves, safety glasses, clothes to prevent contact, goggles or face shield.

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