

## Material Safety Data Sheet

Identity: Vanadium carbide

Formula: VC

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### 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.

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### SECTION II - PRODUCT INFORMATION/HAZARDOUS INGREDIENTS

Chemical Family: Metal carbide

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CAS #	OSHA PEL	ACGIH TLV	100.%
12070-10-9	(V2O5) .05 mg/m3 resp.dust / 0.05 mg (V2O5) / m3		

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### SECTION III - PHYSICAL/ CHEMICAL CHARACTERISTICS

Boiling Point: 3000.00C      Specific Gravity (water=1): 5.77  
Melting Point: 2810.00C      Vapor Pressure: NA  
Physical States: Solid      Vapor Density: NA Evaporation  
Rate: NA      Solubility in Water: Insoluble  
% Volatile: NA      Molecular Weight: 62.95  
Appearance and Odor: Black to gray powder and pieces, no odor

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### SECTION IV - FIRE AND EXPLOSION DATA

Flash Point: NA

Extinguishing Media: Use suitable extinguishing agent for surrounding materials and type of fire.

Special Fire Fighting Procedures:

Wear a self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes.

Unusual Fire and Explosion Hazards:

When heated to decomposition, vanadium carbide may emit toxic fumes of vanadium oxides.

May oxidize rapidly at 800C in air to form vanadium pentoxide.

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#### SECTION V - REACTIVITY DATA

Stability: Stable

Conditions to Avoid: None

Incompatibility: Dissolves in hot oxidizing acids.

Hazardous Decomposition or byproducts: Oxides of vanadium.

Hazardous Polymerization: None.

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#### SECTION VI - HEALTH HAZARD DATA

Routes of entry: Inhalation: Yes, Skin Yes, Eyes Yes, Ingestion Yes.

Emergency and First Aid Procedures:

Ingestion: If conscious, give victim 1-2 glasses of milk or water and induce vomiting.

Seek medical attention.

Inhalation: Remove victim to fresh air. Seek medical attention. Give oxygen if breathing is difficult.

Skin Contact: Brush material off skin. Wash affected area with soap and water. Seek medical attention.

Eye Contact: Flush eyes with lukewarm water for 15 minutes. Seek medical attention.

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#### SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE.

Steps To Be Taken In Case Material Is Released or Spilled:

Wear a self-contained breathing apparatus and full protective clothing. Isolate the area where the spill occurred and insure that proper ventilation is available. Vacuum spill by using a high efficiency unit and place in a container for proper disposal. Take care not to raise dust.

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

Hazard Label Information:

Store in tightly closed containers and in a cool, dry place. Wash hands and face thoroughly after handling and before eating.

Other Precautions:

Wear protective clothing to prevent contamination of skin and clothes.

## SECTION VIII - CONTROL MEASURES

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Protective Equipment Summary - Hazard Label Information NIOSH

approved respirator          Impervious gloves          Safety glasses

Clothes to prevent skin contact

Respiratory Protection (Specify Type):

Wear NIOSH-approved dust-mist-fume cartridge respirator. Protective Gloves: Neoprene

Eye/Face Protection: Safety glasses

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.