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MATERIAL SAFETY DATA SHEET

Section 1- PRODUCT IDENTIFICATION

COMPOSITION HfC	PRODUCT NAME Hafnium Carbide
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Section 2- HAZARDOUS INGREDIENTS

Note: Products under normal conditions do not represent an inhalation, ingestion or contact health hazard.

MATERIAL OR COMPONENT	CAS NUMBER	WT%	EXPOSURE LIMITS	
			OSHA PEL (Mg/M3)	ACGIH TLV(MG/M3)
HfC	12069-85-1	100	0.5mg/m³	0.5mg/m³

Section 3- PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS) <input type="checkbox"/> Liquid <input type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other	APPEARANCE AND ODOR Odorless black powder
MELTING POINT (BASE METAL) Approximately 3890	SPECIFIC GRAVITY 12.20g/cc

Section 4- FIRE AND EXPLOSION

Flash Point (Method Used) N/A	Flammable Limits N/A	LEL N/A	UEL N/A
EXTINGUISHING MEDIA Dry Chemical, CO2, sand or graphite. DO NOT USE WATER!			
SPECIAL FIRED FIGHTING PROCEDURES Wear a self contained breathing apparatus and full protective clothing.			
UNUSUAL FIRE AND EXPLOSION HAZARDS Dust explosion hazard. Material may form flammable methane gas on contact with moisture. May also generate toxic fumes if involved in a fire.			

Section 5- REACTIVITY DATA

STABILITY Stable	INCOMPATABILITY (MATERIALS TO AVOID) Strong acids & oxidizers
CONDITIONS TO AVOID Heat & Moisture	
HAZARDOUS DECOMPOISTION PRODUCTS H2 gas from contact w/ acids.	

Section 6- HEALTH HAZARD GUIDE

MAJOR EXPOSURE HAZARD <input type="checkbox"/> Inhalation <input type="checkbox"/> Skin <input type="checkbox"/> Skin Absorption <input type="checkbox"/> Eye Contact <input type="checkbox"/> Ingestion
EFFECTS OF OVEREXPOSURE INHALATION: Mild respiratory irritant. May act as a nuisance dust. DERMAL/EYE CONTACT: Irritant, eyes may water. OTHER: Low in toxicity. Chronic exposure may lead to liver damage (tested on lab animal)

EMERGENCY & FIRST AID PROCEDURES

INHALATION: Remove from exposed area to fresh air; give oxygen if breathing is difficult.

INGESTION: Give 1-2 glasses of milk or water to induce vomiting if large quantity ingested.

SKIN CONTACT: Wash affected area with soap or mild detergent.

EYE CONTACT: Flush eyes with lukewarm water lifting up the upper and lower lids for at least fifteen minutes.

Section 7- SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES

Isolate area; insure proper ventilation and that water/moisture are kept out of area. Vacuum spill. Take care not to raise dust. Wear a self contained breathing apparatus and full protective clothing

WASTE DISPOSAL METHODS

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

Section 8- SPECIAL PROTECTION

RESPIRATORY

Wear NIOSH approved dust-mist respirator.

VENTILATION

Maintain exposure below TLV. Handle in controlled inert atmosphere. Mechanical ventilation recommended.

EYE PROTECTION & PROTECTIVE CLOTHING

Safety glasses

Section 9- SPECIAL PRECAUTIONS

Store in a cool dry place away from heat and incompatible materials. Wash thoroughly after handling and before eating.

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