



MATERIAL SAFETY DATA SHEET  
COMPLIES WITH 29 CFR 1910.1200.  
OSHA HAZARD COMMUNICATION RULE

DATE OF LAST REVISION: 08-04-95

## CHEMICAL IDENTITY

LABEL IDENTITY	<b>TANTALUM CARBIDE</b>		
CHEMICAL NAME/SYNONYMS	<b>TANTALUM CARBIDE</b>		
FORMULA	<b>TaC</b>		
CHEMICAL FAMILY	<b>METAL CARBIDE</b>		
HAZARDOUS INGREDIENTS	<b>TANTALUM CARBIDE</b>		
TANTALUM: %:	<b>53.8</b>	CAS: <b>7440-25-7</b>	TLV: <b>5 mg/m3</b> OSHA/PEL: <b>5 mg/m3</b>
CARBON: %:	<b>6.2</b>	CAS: <b>1333-86-4</b>	TLV: <b>5 mg/m3</b> OSHA/PEL: <b>5 mg/m3</b>
(AS CARBIDE)			

## PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR	<b>Black-brown powder; odorless</b>
BOILING POINT	<b>5550</b>
DENSITY (gm/cc)	<b>14.48</b>
VAPOR PRESSURE @ 20°	<b>ND</b>
% VOLATILE BY VOLUME (%)	<b>0</b>
REACTION WITH WATER	<b>None</b>
EVAPORATION RATE (H20=1)	<b>ND</b>
SOLUBILITY IN WATER	<b>Insoluble</b>
MELTING POINT	<b>3880</b>

## FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	<b>NA</b>
AUTOIGNITION TEMPERATURE (°C)	<b>NA</b>
FLAMMABILITY	<b>Dry chemical; (other) limestone</b>
EXTINGUISHING MEDIA	<b>Use dry chemical, CO<sub>2</sub>., sand graphite-DO NOT USE WATER ON METAL FIRES!</b>
SPECIAL FIRE FIGHTING PROCEDURES	<b>Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Do not apply water to burning material. During a fire, irritating and toxic gases and aerosols may be generated by thermal decomposition and combustion.</b>
UNUSUAL FIRE & EXPLOSION HAZARDS	<b>Dust may present a fire or explosion hazard under favorable conditions. However, this is not expected to be a problem under normal handling conditions.</b>



## TANTALUM CARBIDE MATERIAL SAFETY DATA SHEET

---

### HEALTH HAZARD INFORMATION

---

TOXICITY DATA **No Data on this compound**

ROUTES OF ENTRY

INHALATION:	<b>Yes</b>
SKIN:	<b>Yes</b>
INGESTION:	<b>Yes</b>

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: **ND**

EFFECTS OF OVEREXPOSURE (acute and chronic):

INHALATION: **May cause mild irritation of the nose and throat.**

DERMAL/EYE: **May cause mild irritation due to abrasive action of the dust.**

OTHER: **None**

---

CARCINOGENICITY: **None** NTP: **No** IARC MONOGRAPHS: **NO** OSHA REGULATE: **NO**

---

EMERGENCY FIRST AID PROCEDURES:

INGESTION: **Induce vomiting. Seek medical attention.**

INHALATION: **Remove to fresh air & administer oxygen if breathing is necessary, seek medical attention.**

SKIN CONTACT: **Brush material off skin. Wash affected area with soap and water.**

EYE CONTACT: **Flush eyes for at least 15 minutes with lukewarm water, seek medical.**

---

### REACTIVITY DATA

---

STABILITY	<b>Stable</b>
CONDITIONS CONTRIBUTING TO UNSTABILITY	<b>NA</b>
INCOMPATIBILITY (MATERIALS TO AVOID)	<b>Strong oxidizing materials, strong acids</b>
HAZARDOUS DECOMPOSITION PRODUCTS	<b>Thermal decomposition may produce oxides of carbon, tantalum and other potentially toxic fumes.</b>
HAZARDOUS POLYMERIZATION	<b>Will Not Occur</b>
CONDITIONS TO AVOID	<b>Keep away from sparks or ignition sources.</b>



## TANTALUM CARBIDE MATERIAL SAFETY DATA SHEET

---

### SAFE HANDLING AND USE

---

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

**Wearing full protective clothing, isolate the area and insure proper ventilation. Vacuum up spill and place in a container for proper disposal. Keep from entering water or ground water.**

WASTE DISPOSAL METHOD:

**May be reclaimed or sold for scrap. Disposal must be in accordance with regulations.**

---

### SPECIAL PROTECTIVE INFORMATION

---

RESPIRATORY PROTECTION	<b>NIOSH/MSHA approved respirator</b>
LOCAL EXHAUST	<b>Maintain below TLV</b>
MECHANICAL (general)	<b>Recommended</b>
SPECIAL	<b>None</b>
OTHER PROTECTIVE EQUIPMENT	<b>Maintain sink, safety shower and eyewash fountain in the work area. Wear full protective clothing at all times.</b>

---

### SPECIAL PRECAUTIONS

---

PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE:

**Store in tightly closed containers in a cool, dry place. Wash hands and face thoroughly.**

TRANSPORTATION REQUIREMENTS	DOT CLASS:	<b>Not Classified</b>
	UN NUMBER:	<b>NC</b>
	IMCO CLASS:	<b>NC</b>
	OTHER:	<b>---</b>

PRECAUTIONARY LABELING

NONE

---

THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, SINCE DATA, SAFETY STANDARDS AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, **ANGSTROM SCIENCES** MAKE NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR THE RELIANCE THEREON. USER SHOULD SATISFY HIMSELF THAT HE HAS ALL CURRENT DATA RELEVANT TO HIS PARTICULAR USE.

NA= NOT APPLICABLE

ND= NO DATA FOUND