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MATERIAL SAFETY DATA SHEET

Section 1- PRODUCT IDENTIFICATION

COMPOSITION Ta	PRODUCT NAME Tantalum
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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)
Tantalum	7440-25-7	100	5 MG/M3 10 MG/M3 (total dust)	5 MG/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 Gray, very hard, malleable, ductile metal. Odorless
MELTING POINT (BASE METAL) 2996C	SPECIFIC GRAVITY 16.69(metal); 14.401 (powder)

Section 4- FIRE AND EXPLOSION

Flash Point (Method Used) N/A	Flammable Limits Flammability hazard as a dry dust or powder	LEL Non Detected	UEL Non Detected
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EXTINGUISHING MEDIA

DO NOT USE WATER ON METAL FIRES – Use dry chemical, CO2, sand, graphite

SPECIAL FIRE FIGHTING PROCEDURES

Requires full face self contained breathing apparatus with full protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Material may emit toxic fumes if involved in a fire. Moderate fire and explosion hazard in the form of a fine powder or dust when exposed to heat, flames or sparks. The dry powder ignites spontaneously in air. Reacts with fluorine, chlorine and oxygen only on heating. At high temperatures absorbs several hundred times its volume of hydrogen. Although very un-reactive in massive form, the finely divided metal may be pyrophoric.

Section 5- REACTIVITY DATA	
STABILITY Unstable	INCOMPATABILITY (MATERIALS TO AVOID) BrF3, F2, Lead Chromate
CONDITIONS TO AVOID Air, heating, sparks, flames, incompatible materials.	
HAZARDOUS DECOMPOSITION PRODUCTS Ta2O3	

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: May be irritating to the respiratory tract and mucous membranes. Sneezing, coughing, difficulty breathing. SKIN CONTACT: Irritation, Redness, inflammation may occur. Dermatitis is possible. EYE CONTACT: Irritation, redness, watering, inflammation possible. Risk of serious injury. OTHER: An experimental equivocal tumorigenic agent. Some industrial skin injuries from tantalum have been reported. However, systemic industrial poisoning is apparently unknown. MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Respiratory disorders, skin disorders. CARCINOGENICITY: None NTP? No IARC Monographs? No OSHA Regulated? No
EMERGENCY & FIRST AID PROCEDURES INHALATION: Remove victim from exposed area to fresh air. Give oxygen if breathing is difficult and seek medical attention. SKIN CONTACT: Remove contaminated clothing and shoes immediately. Brush material off skin and wash affected area with mild soap and water. Seek medical attention. EYE CONTACT: Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes. Seek medical attention. INGESTION: Give 1-2 glasses of milk or water and induce vomiting; seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person.

Section 7- SPILL OR LEAK PROCEDURES
SPILL OR LEAK PROCEDURES Wear a self contained breathing apparatus and full protective clothing. Isolate the area where the spill occurred and insure that proper ventilation is available and that water/moisture is kept out of the area. Vacuum up spill using a high efficiency unit and place in a container for proper disposal. Take care not to raise dust.
WASTE DISPOSAL METHODS Observe all federal, state and local regulations when storing or disposing of this substance.

Section 8- SPECIAL PROTECTION
RESPIRATORY NIOSH approved dust-mist-fume cartridge respirator.
VENTILATION Maintain exposure below TLV.

Special: None

Mechanical: Recommended

Other: None

EYE PROTECTION & PROTECTIVE CLOTHING

Use safety glasses. Wear neoprene protective gloves. Use protective gear suitable to prevent contamination.

Section 9- SPECIAL PRECAUTIONS

Handle in a dry, inert atmosphere.

Toxicity Data: impart TDLO: 3760 mg/kg

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