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MATERIAL SAFETY DATA SHEET

Section 1- PRODUCT IDENTIFICATION

COMPOSITION Ta2O5	PRODUCT NAME Tantalum Oxide, Tantalum Pentoxide, Tantalum (V) Oxide
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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 Oxide	1314-61-00		5mg (Ta)/M3	5mg (Ta)/M3

Section 3- PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS) <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other	APPEARANCE AND ODOR White powder and pieces, no odor
MELTING POINT (BASE METAL) 1872C	SPECIFIC GRAVITY (Water=1): 8.2 Insoluable

Section 4- FIRE AND EXPLOSION

Flash Point (Method Used)	Flammable Limits	LEL	UEL
N/A (Non-Flammable)		N/A	N/A
EXTINGUISHING MEDIA USE: Not Applicable. Use suitable extinguishing media for surrounding materials and type of fire.			
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 run-off to prevent environmental pollution.			
UNUSUAL FIRE AND EXPLOSION HAZARDS When heated to decomposition, Tantalum Oxide may emit toxic fumes.			

Section 5- REACTIVITY DATA	
STABILITY Stable	INCOMPATABILITY (MATERIALS TO AVOID) Strong oxidizing agents, ClF₃, BrF₃, Lithium and acids.
CONDITIONS TO AVOID None	
HAZARDOUS DECOMPOSITION PRODUCTS None recorded	

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 To the best of our knowledge the chemical, physical and toxicological properties of tantalum oxide have not been thoroughly investigated and recorded. INHALATION: Acute-may cause irritation to the nose & throat (may cause red, dry throat & coughing). Chronic-none recorded. SKIN CONTACT: May cause abrasive irritation (may cause redness & itching). Chronic-none recorded. EYE CONTACT: May cause abrasive irritation (may cause redness, itching & watering). Chronic-none recorded. INGESTION: May be toxic by ingestion (may cause nausea & vomiting). Chronic-none recorded. MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Respiratory disorders, skin disorders. TARGET ORGANS: No target organs effected
EMERGENCY & FIRST AID PROCEDURES INHALATION: Remove victim from exposed area to fresh air; keep warm and quiet. 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 PROCUDRES Wear appropriate respiratory and protective equipment specified in Section 8. Isolate the area where the spill occurred and insure that proper ventilation is available. 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 METHODS Observe all federal, state and local regulations when storing or disposing of this substance.

Section 8- SPECIAL PROTECTION

RESPIRATORY

NIOSH/MSHA approved respirator.

VENTILATION

Local exhaust to maintain concentration at or below the PEL.

EYE PROTECTION & PROTECTIVE CLOTHING

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

Section 9- SPECIAL PRECAUTIONS

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Some of the chemicals listed herein are research or experimental substances which may be toxic, as defined by various government regulations. In accordance with Environmental Protection Agency regulations and the Toxic Substance Control Act (TSCA), these materials should only be handled by, or under the strict direct supervision of a "technically qualified individual" as defined in 40 CFR 710.2(aa). The above information is accurate to the best of our knowledge.

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