



## Material Data Safety Sheet

### Quick Identifier: Tantalum Pentoxide

#### I. PRODUCT IDENTIFICATION

<b>Trade Name:</b>	Tantalum Pentoxide	<b>Formula:</b>	Ta2O5
<b>Synonyms:</b>		<b>Molecular Weight:</b>	
<b>CAS #:</b>	N/A		

#### II. HAZARDOUS INGREDIENTS

<u>Hazardous Components:</u>	<u>OSHA PEL:</u>	<u>ACGIH TLV:</u>	<u>Other Limits:</u>
Tantalum Pentoxide		5 mg/m <sup>3</sup>	
<b>Sec. 302 (EHS):</b>	No	<b>Sec. 304 RQ:</b> No	<b>Sec. 313:</b> No
<b>HMIS Ratings (0-4): Health:</b>	N/A	<b>Flammability:</b> N/A	<b>Reactivity:</b> N/A
<b>HMIS Protective Equipment:</b>	N/A		

#### III. PHYSICAL DATA

<b>Boiling Point:</b>	1872 C	<b>Melting Point:</b>	1872 C
<b>Specific Gravity (H<sub>2</sub>O=1):</b>	11-16 g/ cu. In.	<b>Vapor Density (Air=1):</b>	N/A
<b>Vapor Pressure (mm Hg):</b>	N/A	<b>Evaporation Rate:</b>	N/A
<b>% Volatiles by Volume:</b>	N/A	<b>Solubility in H<sub>2</sub>O:</b>	Insoluble

**Appearance and Odor:** White, microcryst, infusible, powder. Odorless

#### IV. FIRE AND EXPLOSION HAZARDS DATA

<b>Flash Point/Method:</b>	Not applicable		
<b>Explosive Limits:</b>	<b>LEL:</b> N/A	<b>UEL:</b> N/A	
<b>Extinguishing Media:</b>	N/A		
<b>Special Fire Fighting Procedures:</b>	N/A		
<b>Unusual Fire and Explosion Hazards:</b>	N/A		

#### V. HEALTH HAZARD INFORMATION

<b>Routes of Entry:</b>	Inhalation, Skin and Ingestion.		
<b>Target Organs:</b>	N/A		
<b>Carcinogenicity: NTP:</b>	No	<b>IARC Monographs:</b> No	<b>OSHA Regulated:</b> No
<b>LD50/LC50:</b>	No toxicity data recorded.		

**Health Hazards (Acute and Chronic):**

**Inhalation:**

**Acute:** May cause fibrosis of the lungs.

**Chronic:** N/A

**Ingestion:**

**Acute:** Systemic industrial poisoning is apparently unknown.

**Chronic:** N/A

**Skin:**

**Acute:** May cause irritation.

**Chronic:** N/A

**Eye:**

**Acute:** N/A

**Chronic:** N/A

**Signs and Symptoms of Exposures:**

**Inhalation:** N/A

**Ingestion:** N/A

**Skin:** N/A

**Eye:** N/A

**Medical Conditions Generally** N/A

**Aggravated by Exposure:**

**EMERGENCY AND FIRST AID PROCEDURES:**

**INHALATION:** Remove from area where airborne concentration exceeds 5 mg/m<sup>3</sup>

**INGESTION:** None required

**SKIN:** Remove contaminated clothing and wash thoroughly with soap and water

**EYE:** None suggested.

**VI. REACTIVITY DATA**

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**Stability:** Stable

**Incompatibility (Material to avoid):** Reacts violently with BrF<sub>3</sub>, Li

**Hazardous Decomposition Products:** N/A

**Hazardous Polymerization:** Will not occur

**Conditions to Avoid:** See below

**VII. SPILL OR LEAK PROCEDURES**

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**Steps to Be Taken in Case Material Is Released or Spilled:** Provide engineering controls to keep airborne dust concentrations and exposure to a minimum.

**Waste Disposal Method:** Reclaim or dispose of scrap material in accordance with applicable federal, state and local regulations.

**Hazard Label Information:** Not applicable

**Precautions to Be Taken in Handling and Storing:** Not mentioned

**VIII. SPECIAL PROTECTION INFORMATION**

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**Respiratory Protection:** Utilize NIOSH approved respirator whenever airborne concentrations exceed 5 mg/m<sup>3</sup>

**Ventilation: Local Exhaust:** See above

**Mechanical (General):** See above

**Protective Gloves:** Leather

**Eye Protection:** Industrial safety glasses

**Other Protective Clothing or Equipment:** Coverall to reduce skin contact.

**Work/Hygienic/Maintenance** Normal hygienic practices.

**Practices:**

**IX. ADDITIONAL COMMENTS**

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Some of the chemicals listed herein are research or experimental substances which may be toxic, as defined by various governmental 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 direct supervision of a "technically qualified individual", as defined in 40 CFR 710.2(aa).

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