

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Trade Name:** Tantalum Pentoxide

**Chemical Formula:** Ta<sub>2</sub>O<sub>5</sub>

**Manufacturer Item Number:** N/A

**Manufacturer:** Lorad Chemical Corporation  
1200 19th Street North  
Saint Petersburg, Florida, 33713  
United States of America

**Telephone:** +1 (727) 826-5511

**Fax:** +1 (727) 826-5510

**Emergency Contact:** (800) 255-3924 (US & Canada)  
+1 (813) 248-0573 (International)

**2. HAZARD IDENTIFICATION**

**Signal Word:** Not a Hazardous Substance or Mixture

**Pictograms:** N/A

**Hazard Statements:** N/A

**Precautionary Statements:** N/A

**HMIS Health Ratings (0-4)**

- Health: 0
- Flammability: 0
- Physical: 0

**3. COMPOSITION**

**Additional Names:** Tantalum(V) Oxide; Ditantalum Pentaoxide

**Percentage:** 100 wt%

**CAS #:** 1314-61-0

**EC #:** 215-238-2

**4. FIRST AID PROCEDURES**

**General Treatment** Consult a physician. Show this SDS to the physician in attendance. Move out of dangerous area.

**Special Treatment:** No Data Available.

**Important Symptoms:** No Data Available.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water.

**Skin:** Wash off with soap and plenty of water.

**Eyes:** Flush eyes with water as a precaution.

## 5. FIREFIGHTING MEASURES

**Flammability:** Not Flammable.

**Special Hazards from Substance:** Tantalum Pentaoxide

**Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus for firefighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

**If Material is Released / Spilled:** Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Avoid breathing dust. Pick up and arrange dispose without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**Environmental Precautions:** Prevent further leakage or spills if safe to do so. Do not allow to enter drains, sewers, or watercourses.

## 7. HANDLING AND STORAGE

**Handling Conditions:** Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

**Storage Conditions:** Keep container tightly closed in a dry and well-ventilated place.

**Work / Hygienic Maintenance:** Do not eat, drink, or smoke when working with this product. Wear protective gloves and wash skin thoroughly after handling. Keep formation of airborne dusts to a minimum. Guard against dust accumulation. In case of insufficient ventilation, wear suitable respiratory equipment.

**Ventilation:** Keep in well ventilated area.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	OSHA	PEL	5.0 mg/m <sup>3</sup>	Tantalum metal and oxide dust, Table Z-1 Limits for Air Contaminants (8-hour time weighted average)
	California	PEL	5.0 mg/m <sup>3</sup>	Tantalum metal and oxide dust, California permissible exposure limits for chemical contaminants (Title 8, Article 107) (8-hour time weighted average)
Threshold Limit Value:	Authority	Basis	Limit	Remarks
	NIOSH	REL	5.0 mg/m <sup>3</sup>	Tantalum metal and oxide dust (up to 10-hour time weighted average)
	NIOSH	STEL	10.0 mg/m <sup>3</sup>	Tantalum metal and oxide dust (15-minute time weighted average)
<b>Special Equipment:</b>	Use proper lab equipment while handling this product.			
<b>Respiratory Protection:</b>	Respiratory protection is not required. For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher levels of protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).			

<b>Protective Gloves:</b>	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
<b>Eye Protection:</b>	Safety glasses with side shield. Use equipment for eye protection tested and approved under government standards such as NIOSH (US) or EN 166 (EU).
<b>Body Protection:</b>	Wear appropriate protective clothing.

## 9. PHYSICAL AND CHEMICAL CHARACTERISTICS

<b>Color:</b>	Beige	<b>Molecular Weight:</b>	441.89 g/mol
<b>Forms:</b>	Powder	<b>Density:</b>	8.2 g/cm <sup>3</sup> at 25°C (77°F)
<b>Odor:</b>	Odorless	<b>pH:</b>	No Data Available.
<b>Water Solubility:</b>	Insoluble in water	<b>Auto-Ignition Temperature:</b>	No Data Available.
<b>Boiling Point:</b>	No Data Available.	<b>Evaporation Rate:</b>	No Data Available.
<b>Melting Point / Freezing Point:</b>	> 1,872°C (> 3,402°F)	<b>Flammability or Explosive Limits:</b>	No Data Available.
<b>Vapor Pressure:</b>	No Data Available.	<b>Partition Coefficient: n-octanol/ water</b>	No Data Available.
<b>Vapor Density:</b>	No Data Available.	<b>Decomposition Temperature:</b>	No Data Available.
<b>Flash Point:</b>	No Data Available.	<b>Viscosity:</b>	No Data Available.

## 10. REACTIVITY

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Reacts with:</b>	Strong Oxidizing Agents.
<b>Incompatible Conditions:</b>	No Data Available.
<b>Hazardous Decomposition Products:</b>	Under fire conditions may form metal oxide fumes.

## 11. TOXICOLOGICAL INFORMATION

<b>Potential Health Effects:</b>	Eyes: May cause irritation. Skin: May cause irritation. Ingestion: May cause irritation. Inhalation: May cause irritation. Chronic: No Data Available.
<b>Signs and Symptoms:</b>	Tantalum metal is an experienced equivocal tumorigenic agent. Some industrial skin injuries from tantalum have been reported. However, systemic industrial poisoning is apparently not known. Low oral activity.
<b>Aggravate Medical Conditions:</b>	No Data Available.
<b>Median Lethal Dose:</b>	Oral Rat LD50: 8,000mg/kg

<b>Carcinogen:</b>	<p>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.</p> <p>ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.</p> <p>NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.</p> <p>OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.</p>
--------------------	--

## 12. ECOLOGICAL INFORMATION

<b>Aquatic Toxicity:</b>	No Data Available.
<b>Persistence and degradability:</b>	No Data Available.
<b>Bioaccumulative potential:</b>	No Data Available.
<b>Notes:</b>	No Data Available.

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal:</b>	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Empty containers should be taken to an appropriate waste handling site for recycling or disposal. Dispose of in accordance with local, state, or national regulations.
------------------	---

## 14. TRANSPORTATION DATA

<b>Hazardous:</b>	<p><b>DoT:</b> Not Dangerous Goods.</p> <p><b>IMDG:</b> Not Dangerous Goods.</p> <p><b>IATA:</b> Not Dangerous Goods.</p>
<b>Pictogram:</b>	N/A
<b>Hazard Class:</b>	N/A
<b>Packing Group:</b>	N/A
<b>UN Number:</b>	N/A
<b>Proper Shipping Name:</b>	<p><b>DoT:</b> N/A</p> <p><b>IMDG:</b> N/A</p> <p><b>IATA:</b> N/A</p>

## 15. REGULATORY INFORMATION

<b>SARA 302 Components</b>	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
<b>SARA 313 Components</b>	This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.
<b>SARA 311/312 Hazards</b>	No SARA Hazards.
<b>Massachusetts Right to Know Components</b>	No components are subject to the Ma. Right to Know Act.

<b>Pennsylvania Right to Know Components</b>	Tantalum Pentoxide (CAS No. 1314-61-0).
<b>New Jersey Right to Know Components</b>	Tantalum Pentoxide (CAS No. 1314-61-0).
<b>California Prop. 65 Components</b>	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

**16. OTHER INFORMATION**

Copyright 2018 Lorad Chemical Corporation. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. The information in this sheet does not represent a guarantee of the properties of the product. Lorad Chemical Corporation and its Affiliates make no warranty with respect to the accuracy of the information or the suitability of this product for any particular application, and shall not be held liable for any damage resulting from handling or from contact with the above product.

Revision Date: 06/13/2018