



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Tantalum Chloride

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1. Product and Company Identification

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Trade Name:	Tantalum Chloride
Chemical Formula:	TaCl <sub>5</sub>
Recommended Use:	Scientific research and development
Manufacturer/Supplier:	LTS Research Laboratories, Inc.
Street:	37 Ramland Road
City:	Orangeburg
State:	New York
Zip Code:	10962
Country:	USA
Tel #:	855-587-2436 / 855-lts-chem
24-Hour Emergency Contact:	800-424-9300 (US & Canada) +1-703-527-3887 (International)



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## 2. Hazards Identification

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Signal Word:

Danger



Hazard Statements:

H302: Harmful if swallowed  
H314: Causes severe skin burns and eye damage  
H335: May cause respiratory irritation

Precautionary Statements:

P260: Do not breathe dust/fume/gas/mist/vapours/spray  
P264: Wash face, hands, and any exposed skin thoroughly after handling  
P270: Do not eat, drink or smoke when using this product  
P271: Use only outdoors or in a well-ventilated area  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
P310: Immediately call a POISON CENTER or doctor/physician  
P363: Wash contaminated clothing before reuse  
P403+P233: Store in a well ventilated place. Keep container tightly closed  
P405: Store locked up  
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):

Health:	3
Flammability:	0
Physical:	0

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## 3. Composition

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Chemical Family:

Inorganic Compound

Additional Names:

Tantalum pentachloride

Tantalum Chloride (TaCl<sub>5</sub>):

Percentage:	0-100 wt%
CAS #:	7721-01-9
EC #:	231-755-6

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#### 4. First Aid Procedures

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General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	Causes severe skin burns and eye damage
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion:	Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

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#### 5. Firefighting Measures

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Flammability:	Non-flammable, except as powder
Extinguishing Media:	CO 2, dry chemical, dry sand, alcohol-resistant foam.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

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#### 6. Accidental Release Measures

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If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

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#### 7. Handling and Storage

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Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

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#### 8. Exposure Controls and Personal Protection

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Permissible Exposure Limits:	N/A
Threshold Limit Value:	N/A
Special Equipment:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

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## 9. Physical and Chemical Characteristics

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Color	Off-white
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	N/A
Water Solubility:	N/A
Boiling Point:	242 °C
Melting Point:	221 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	N/A
Molecular weight:	358.21 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions. Moisture sensitive.
Reacts With:	Alkalines and acids
Incompatible Conditions:	Excess heat, exposure to moist air or water, strong oxidizing agents
Hazardous Decomposition Products:	Hydrogen chloride gas, vapors, and irritating gases

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## 11. Toxicological Information

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Potential Health Effects:	
Eyes:	Causes serious damage
Skin:	Causes severe skin burns
Ingestion:	Harmful if swallowed
Inhalation:	May cause irritation
Chronic:	N/A
Signs & Symptoms:	Ingestion may cause severe swelling, severe damage to the delicate tissue, and danger of perforation of stomach or esophagus
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	1900 mg/kg for rat by mouth
Carcinogen:	N/A

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## 12. Ecological Information

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Aquatic Toxicity:	N/A
Persistent Bioaccumulation Toxicity:	N/A
Very Persistent, Very Bioaccumulative:	N/A
Notes:	Do not empty into drains

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## 13. Disposal Considerations

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Dispose of in accordance with local, state, national, and international regulations.

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#### 14. Transportation Data

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Hazardous: Hazardous as powder only.



Hazard Class: 8  
Packing Group: II  
UN Number: UN3260  
Proper Shipping Name: Corrosive solid, acidic, inorganic, n.o.s (Tantalum chloride)

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#### 15. Regulatory Information

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Sec 302 Extremely Hazardous: No  
Sec 304 Reportable Quantities: N/A  
Sec 313 Toxic Chemicals: No

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#### 16. Other Information

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This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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