



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Platinum (IV) oxide

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1. Product and Company Identification

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Trade Name: Platinum (IV) oxide  
Chemical Formula: PtO<sub>2</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: H272: May intensify fire; oxidizer  
H319: Causes serious eye irritation

Precautionary Statements: P210: Keep away from heat  
P220: Keep/Store away from clothing/ combustible materials  
P221: Take any precaution to avoid mixing with combustibles  
P264: Wash skin thoroughly after handling  
P280: Wear protective gloves/ eye protection/ face protection  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313: If eye irritation persists: Get medical advice/ attention.  
P370+P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):  
Health: 1  
Flammability: 0  
Physical: 3

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### 3. Composition

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Material Family: Metal oxide  
Additional Names: Platinum dioxide

Platinum (IV) oxide (PtO<sub>2</sub>):  
Percentage: 100 wt%  
CAS #: 1314-15-4  
EC #: 215-223-0

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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: None

Inhalation: Remove victim to fresh air. Supply oxygen if breathing is difficult. Keep patient warm. Seek immediate medical attention.  
Ingestion: Seek immediate medical attention.  
Skin: Immediately wash affected area with mild soap and water. Remove any contaminated clothing. Seek immediate medical attention.  
Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention.

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### 5. Firefighting Measures

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Flammability: Non-flammable by itself. This substance is an oxidizer – may cause ignition by reaction with reducing agents or combustibles.

Extinguishing Media: No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.

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. Keep unprotected persons away. Isolate spill area and provide ventilation. Acts as an oxidizing agent on organic materials such as wood, paper and fats. Keep away from combustible material. 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. Substance/product can reduce the ignition temperature of flammable substances. This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Store away from reducing agents, metal powders, flammable substances. Do not store together with organic materials. 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:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
Respiratory Protection:	Use a recommended dust respirator or mask. Only use equipment tested and approved under appropriate government standards.
Protective Gloves:	Nitrile rubber gloves with minimum thickness of 0.11 mm
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	N/A
Form:	Powder
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	450 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	10.2 g/cc
Molecular weight:	227.08 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions. May intensify a fire; oxidizer.
Reacts With:	Reducing agents, flammable substances, organic materials, metal powders
Incompatible Conditions:	None
Hazardous Decomposition Products:	Metal oxide fumes

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## 11. Toxicological Information

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### Potential Health Effects:

Eyes:	Causes serious eye irritation
Skin:	May cause irritation
Ingestion:	May cause irritation
Inhalation:	May cause irritation
Chronic:	N/A

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: 8,000 mg/kg for rat by mouth

Carcinogen: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
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.  
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.  
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.

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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:	Avoid transfer into the environment

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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:	5.1 Oxidizing substances
Packing Group:	II
UN Number:	UN1479
Proper Shipping Name:	Oxidizing solid, n.o.s. (Platinum (IV) oxide)

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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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10/03/2019

