



LTS Research Laboratories, Inc.
Safety Data Sheet
Thallium Oxide

1. Product and Company Identification

Trade Name: Thallium Oxide
Chemical Formula: Tl_2O_3
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)

2. Hazards Identification

Signal Word: Danger



Hazard Statements: H300+H330: Fatal if swallowed or if inhaled
H373: May cause damage to organs through prolonged or repeated exposure
H411: Toxic to aquatic life with long lasting effects

Precautionary Statements: P260: Do not breathe dust/fume/gas/mist/vapors/spray
P264: Wash 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
P273: Avoid release to the environment
P284: Wear respiratory protection
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P314: Get Medical advice/attention if you feel unwell
P391: Collect spillage
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: 1

3. Composition

Chemical Family: Metal Oxide
Additional Names: Thallium(III) Oxide

Thallium Oxide (Tl₂O₃)
Percentage: 100 wt%
CAS #: 1314-32-5
EC #: 215-229-3

4. First Aid Procedures

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. Seek medical attention.
Ingestion: Rinse mouth with water. Seek medical attention.
Skin: Wash affected area with mild soap and water. Remove any contaminated clothing. Seek medical attention.
Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.

5. Firefighting Measures

Flammability: Non-flammable, except as powder.
Extinguishing Media: Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.
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.

6. Accidental Release Measures

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.

7. Handling and Storage

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.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits: N/A
Threshold Limit Value: N/A
Special Equipment: None

Respiratory Protection: Use a recommended dust respirator or mask. Only use equipment tested and approved under appropriate government standards.
Protective Gloves: Rubber gloves
Eye Protection: Safety glasses or goggles
Body Protection: Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color: N/A
Form: Powder, Granules, Pellets, Sputtering target, Custom parts
Odor: N/A
Water Solubility: N/A
Boiling Point: N/A
Melting Point: 717 °C
Flash Point: N/A
Autoignition Temperature: N/A
Density: 10.19 g/cm³
Molecular weight: 424.07 g/mol

10. Reactivity

Stability: Stable under recommended storage conditions
Reacts With: N/A
Incompatible Conditions: None
Hazardous Decomposition Products: Thallium Oxides

11. Toxicological Information

Potential Health Effects:
Eyes: May cause irritation
Skin: May cause irritation
Ingestion: Fatal if ingested
Inhalation: Fatal if swallowed
Chronic: N/A

Signs & Symptoms: Stomach irregularities
Aggravated Medical Conditions: N/A

Median Lethal Dose: LD50 Oral - Rat - 44 mg/kg

Carcinogen: N/A

12. Ecological Information

Aquatic Toxicity: High with long lasting effects
Persistent Bioaccumulation Toxicity: N/A
Very Persistent, Very Bioaccumulative: N/A
Notes: N/A

13. Disposal Considerations

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

14. Transportation Data

Hazardous: Hazardous for transportation



Hazard Class: 6.1 Toxic substances
Packing Group: II
UN Number: UN1707
Proper Shipping Name: Thallium compounds, n.o.s. (Thallium Oxide)

15. Regulatory Information

Sec 302 Extremely Hazardous: No
Sec 304 Reportable Quantities: 100 lbs
Sec 313 Toxic Chemicals: Yes

16. Other Information

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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