



LTS Research Laboratories, Inc.
Safety Data Sheet
Erbium(III) nitrate pentahydrate

1. Product and Company Identification

Trade Name: Erbium(III) nitrate pentahydrate

Chemical Formula: $\text{Er}(\text{NO}_3)_3 \cdot 5\text{H}_2\text{O}$

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:

H272: May intensify fire; oxidizer.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

Precautionary Statements:

P210: Keep away from heat/sparks/open flames/hot surfaces - No smoking.

P220: Keep/Store away from clothing/combustible materials.

P221: Take any precaution to avoid mixing with combustibles.

P261: Avoid breathing dust/fume/vapor.

P264: Wash face, hands, any exposed skin thoroughly after handling.

P271: Use only outdoors or in a well ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352: IF ON SKIN: Wash with soap and water.

P304+P340+P312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P362: Take off contaminated clothing and wash before reuse.

P370+P378: In case of fire: Use dry sand, dry chemical or alcohol Resistant foam for extinction.

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:	2
Flammability:	0
Physical:	2

3. Composition

Chemical Family:	Nitrates
Additional Names:	Erbium trinitrate pentahydrate

Er(NO ₃) ₃ ·5H ₂ O:	
Percentage:	100 wt%
CAS #:	10031-51-3
EC #:	233-436-7

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.
Ingestion:	Give one to two glasses of water. Never induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention.

Skin:	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.

5. Firefighting Measures

Flammability:	Non-flammable, except as powder
Extinguishing Media:	Use dry sand, dry chemical or alcohol resistant foam for extinction.
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. Strongly hygroscopic.
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:	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.

9. Physical and Chemical Characteristics

Color	Pink
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Soluble
Boiling Point:	N/A
Melting Point:	130 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	N/A
Molecular weight:	443.35g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions. Hygroscopic. Oxidizer.
Reacts With:	Reducing agents, flammable substances, water.
Incompatible Conditions:	Strong acids, Powdered metals, Strong reducing agents, Combustible materials, Moisture
Hazardous Decomposition Products:	Nitrogen oxides, Erbium oxide.

11. Toxicological Information

Potential Health Effects:

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

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: No

12. Ecological Information

Aquatic Toxicity: N/A

Persistent Bioaccumulation Toxicity: N/A

Very Persistent, Very Bioaccumulative: N/A

Notes: Donot empty into drains.

13. Disposal Considerations

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

14. Transportation Data

Hazardous: Hazardous for transportation



Hazard Class: 5.1 Oxidizers

Packing Group: II

UN Number: UN 1477

Proper Shipping Name: Nitrates, Inorganic, N.O.S. (Erbium (III) nitrate pentahydrate)

15. Regulatory Information

Sec 302 Extremely Hazardous: No

Sec 304 Reportable Quantities: N/A

Sec 313 Toxic Chemicals: No

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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