



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Ytterbium Nitrate Hydrate

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1. Product and Company Identification

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Trade Name: Ytterbium Nitrate Hydrate  
Chemical Formula:  $\text{Yb}(\text{NO}_3)_3 \cdot x\text{H}_2\text{O}$   
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)

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2. Hazards Identification

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Signal Word:

Danger



Hazard Statements:

H272: May intensify fire; oxidizer.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H335: May cause respiratory 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.  
P261: Avoid breathing dust.  
P264: Wash skin thoroughly after handling.  
P271: Use only outdoors or in a well-ventilated area.  
P280: Wear protective gloves/ eye protection/ face protection.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332 + P313: If skin irritation occurs: Get medical advice/ attention.  
P337 + P313: If eye irritation persists: 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 to extinguish.  
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.  
P405: Store locked up.  
P501: Dispose of contents/ container to an approved waste disposal plant.

HMIS Health Ratings (0-4):

Health:	2
Flammability:	0
Physical:	1

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3. Composition

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Chemical Family:	Nitrates
Additional Names:	N/A

Ytterbium Nitrate Hydrate (Yb(NO<sub>3</sub>)<sub>3</sub>.xH<sub>2</sub>O):

Percentage:	0-100 wt%
CAS #:	35725-34-9
EC #:	237-384-6

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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:	None

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.
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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
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Extinguishing Media:	No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.
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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.
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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	White
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	N/A
Water Solubility:	N/A
Boiling Point:	N/A
Melting Point:	N/A
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	N/A
Molecular weight:	449.13 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts With:	Organic materials
Incompatible Conditions:	None
Hazardous Decomposition Products:	Nitrogen oxides, Ytterbium oxides, Metal oxide fume

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## 11. Toxicological Information

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Potential Health Effects:	
Eyes:	May cause 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:	N/A
Carcinogen:	N/A

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## 12. Ecological Information

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Aquatic Toxicity:	Low
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bioaccumulative:	No
Notes:	N/A

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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
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Hazard Class:	5.1
Packing Group:	II
UN Number:	1477
Proper Shipping Name:	Nitrates, inorganic, n.o.s. (Ytterbium Nitrate Hydrate)

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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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