



LTS Research Laboratories, Inc.
Safety Data Sheet
Yttrium Nitrate Hexahydrate

1. Product and Company Identification

Trade Name: Yttrium Nitrate Hexahydrate
Chemical Formula: $Y(NO_3)_3 \cdot 6H_2O$
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: H302: Harmful if swallowed
H318: Causes serious eye damage
H410: Very toxic to aquatic life with long lasting effects

Precautionary Statements: P264: Wash skin thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312+P330: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
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
P391: Collect spillage
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):
Health: 2
Flammability: 0
Physical: 3

3. Composition

Chemical Family: Inorganic compound
Additional Names: Yttrium(III) Nitrate Hexahydrate

Yttrium Nitrate Hexahydrate ($Y(NO_3)_3 \cdot 6H_2O$):
Percentage: 0-100 wt%
CAS #: 13494-98-9
EC #: 677-716-0

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 immediate medical attention if symptoms occur.
Ingestion: Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention if symptoms occur.
Skin: Wash affected area with mild soap and water. Remove any contaminated clothing. If skin irritation persists, 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: Water spray, carbon dioxide (CO_2), dry chemical, 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.

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:	1 mg/m ³ as Y(NO ₃) ₃ ·6H ₂ O, long-term value
Threshold Limit Value:	1 mg/m ³ as Y(NO ₃) ₃ ·6H ₂ O, long-term value
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	White
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	N/A
Boiling Point:	N/A
Melting Point:	N/A
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	2.82 g/cm ³
Molecular weight:	383.01 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions. Hygroscopic.
Reacts With:	Strong acids, strong reducing agents, Oxidisable substances, Organic combustible substances, Alkalines, Cyanides, Isocyanates
Incompatible Conditions:	Combustible material, excess heat, dust formation, exposure to moist air or water, strong acids, strong reducing agents, organic materials, powdered metals
Hazardous Decomposition Products:	Nitrogen oxides (NO _x), Yttrium oxides

11. Toxicological Information

Potential Health Effects:	
Eyes:	Causes serious eye damage
Skin:	May cause irritation
Ingestion:	Harmful if swallowed
Inhalation:	May cause irritation
Chronic:	N/A
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	LD50 Oral: 1650 mg/kg for rat by mouth
Carcinogen:	N/A

12. Ecological Information

Aquatic Toxicity:	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Persistent Bioaccumulation Toxicity:	N/A
Very Persistent, Very Bioaccumulative:	N/A
Notes:	May contribute to the eutrophication of drinking water supplies. Discharge into the environment must be avoided.

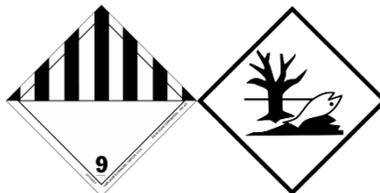
13. Disposal Considerations

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

14. Transportation Data

Hazardous:

Hazardous for transportation



Hazard Class:

9

Packing Group:

III

UN Number:

UN3077

Proper Shipping Name:

Environmentally hazardous substance, solid, n.o.s. (Yttrium(III) nitrate hexahydrate)

15. Regulatory Information

Sec 302 Extremely Hazardous:

No

Sec 304 Reportable Quantities:

N/A

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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