



LTS Research Laboratories, Inc.
Safety Data Sheet
Yttrium Sulfate Octahydrate

1. Product and Company Identification

Trade Name: Yttrium Sulfate Octahydrate
Chemical Formula: $Y_2(SO_4)_3 \cdot 8H_2O$
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 2001 Oaks Pkwy
City: Belmont
State: North Carolina
Zip Code: 28012
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: Warning



Hazard Statements: H315: Causes skin irritation
H319: Causes serious eye irritation
H335: May cause respiratory irritation

H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H335: May cause respiratory irritation

Precautionary Statements

P261 Avoid breathing dust/fume/vapor
P264: Wash face, hands and 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: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do continue rinsing
P312: Call a POISON CENTER or doctor/physician if you feel unwell
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
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:	0

3. Composition

Chemical Family:	Salt
Additional Names:	Yttrium (III) Sulfate Octahydrate

Ruthenium chloride (RuCl ₃):	
Percentage:	100 wt.%
CAS #:	7446-33-5

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.
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Ingestion:	Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek immediate medical attention.
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Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing. Seek immediate medical attention.
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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. Seek immediate medical attention.
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5. Firefighting Measures

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

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

Handling Conditions:	Wash thoroughly after handling. Avoid formation of dust and aerosols. Do not get into eyes skin or clothing. Do not breathe dust or ingest. Wear personal protective equipment. Use only under a chemical fume hood.
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 respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
Protective Gloves:	Nitrile rubber, NBR 0.11mm thick.
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-Light Yellow
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:	610.11 gm/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts with:	N/A
Incompatible Conditions/Materials:	N/A
Hazardous Decomposition Products:	Sulfur oxides, Metal oxides

11. Toxicological Information

Potential Health Effects:

Eyes:	Causes serious eye irritation.
Skin:	Causes skin irritation.
Ingestion:	May cause irritation.
Inhalation:	May cause irritation to respiratory system.
Chronic:	N/A

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: N/A

12. Ecological Information

Aquatic Toxicity: Low

Persistent Bioaccumulation Toxicity: No

Very Persistent, Very Bioaccumulative: No

Notes: N/A

13. Disposal Considerations

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

14. Transportation Data

Hazardous: Not Hazardous for Transportation.

Hazard Class: N/A

Packing Group: N/A

UN Number: N/A

Proper Shipping Name: N/A

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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