

# SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-10

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Yttrium(III) nitrate hydrate  
Product Number : Y332660  
Brand : aladdin  
CAS-No. : 10361-93-0

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION  
Address : 14078 Meridian Parkway,  
Riverside, CA. 92518  
Telephone : +1 (833) 552-7181  
Fax : no data available

### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300  
CHEMTREC®, Outside the USA :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302

Serious eye damage/eye irritation (Category 1), H318

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H302

Harmful if swallowed

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H318	Causes serious eye damage
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
<b>Precautionary statement(s)</b>	
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P220	Keep away from clothing and other combustible materials.
P221	Take any precaution to avoid mixing with combustibles/...
P264	Wash hands [and ...] 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.
P391	Collect spillage.
P370+P378	In case of fire: Use ... to extinguish.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.
P301+P312+P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P305+P351+P338+P310	IF IN EYES: Rinse cautiously with water for several minutes. If contact lenses are worn and can be easily removed, remove Contact lenses. Continue rinsing. Immediately call an emergency center/doctor.

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	: no data available
Formula	: Y(NO <sub>3</sub> ) <sub>3</sub> ·xH <sub>2</sub> O
Molecular weight	: 274.92 (Anhydrous)
CAS No.	: 10361-93-0
EC-NO.	: no data available

Component	Classification	Concentration
<b>Yttrium(III) nitrate hydrate</b>		
	Acute toxicity Category 4; Serious eye damage/eye irritation Category 1; Short-term (acute) aquatic hazard Category 1; Longterm (chronic) aquatic hazard Category 1; H302, H318, H400, H410 M-Factor - Aquatic Acute: 1 - Aquatic Chronic: 1	PrimorTrace™, ≥99.99% metals basis

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Phone: +1 (833) 552-7181 Email: QualityAssurance@aladdinsci.com Website: <https://www.aladdinsci.com/>

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**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

no data available

**4.3 Indication of any immediate medical attention and special treatment needed**

no data available

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**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

**5.2 Special hazards arising from the substance or mixture**

Nitrogen oxides (NO<sub>x</sub>) Yttrium oxides Not combustible. Ambient fire may liberate hazardous vapours

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information**

Use water spray to cool unopened containers.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by

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wetbrushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

## 6.4 Reference to other sections

no data available

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Hygroscopic.

### 7.3 Specific end use(s)

no data available

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### Body Protection

impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and

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approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

no data available

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**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

a) Appearance	form: crystal or crystal powder color: white
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	100°C
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	2.682 g/mL at 25 °C (77 °F)
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

**9.2 Other safety information**

no data available

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**SECTION 10: Stability and reactivity****10.1 Reactivity**

Stable under recommended storage conditions.

**10.2 Chemical stability**

no data available

**10.3 Possibility of hazardous reactions**

Risk of ignition or formation of inflammable gases or vapours with: Reducing agents oxidisable substances organic combustible substances alkalines Strong acids Cyanides Isocyanates

## 10.4 Conditions to avoid

no data available

## 10.5 Incompatible materials

Organic materials, Powdered metals

## 10.6 Hazardous decomposition products

In the event of fire: see section 5

# SECTION 11: Toxicological information

## 11.1 Information on toxicological effects

### Acute toxicity

LD50 Oral - Rat - male and female - 1,650 mg/kg (OECD Test Guideline 401) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Yttrium(III) nitrate Inhalation: Irritating to respiratory system. Symptoms: Possible damages:, mucosal irritations, bronchitis

LD50 Dermal - Rat - male and female - > 2,000 mg/kg (OECD Test Guideline 402) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Yttrium(III) nitrate

### Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation - 24 h (OECD Test Guideline 404) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Yttrium(III) nitrate

### Serious eye damage/eye irritation

Eyes - Rabbit Result: Causes serious eye damage. (OECD Test Guideline 405) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Yttrium(III) nitrate

### Respiratory or skin sensitisation

Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Yttrium(III) nitrate

### Germ cell mutagenicity

No data available Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Remarks: (anhydrous substance) The value is given in analogy to the following substances: Yttrium(III) nitrate Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Remarks: (anhydrous substance) The value is given in analogy to the following substances: Yttrium(III) nitrate Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative Remarks: (anhydrous substance) The value is given in analogy to the following substances: Yttrium(III)

### Carcinogenicity

no data available

### Reproductive toxicity

no data available

### Specific target organ toxicity - single exposure

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no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Additional Information**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish semi-static test LC50 - *Oncorhynchus mykiss* (rainbow trout) - 0.62 mg/l - 96 h (OECD Test Guideline 203) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Yttrium(III) nitrate

Toxicity to daphnia and other aquatic invertebrates static test EC50 - *Daphnia magna* (Water flea) - > 100 mg/l - 48 h (Regulation (EC) No. 440/2008, Annex, C.2) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Yttrium(III) nitrate

Toxicity to bacteria static test EC50 - activated sludge - 470 mg/l - 3 h (OECD Test Guideline 209) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Yttrium(III) nitrate

**12.2 Persistence and degradability**

no data available

**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

no data available

**12.6 Other adverse effects**

no data available

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**SECTION 13:****13.1 Disposal considerations****Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a

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licensed professional waste disposal service to dispose of this material.  
**Contaminated packaging**  
 Dispose of as unused product.

### SECTION 14: Transport information

<b>DOT (US)</b>		
UN number: 1477	Packing group: II	Class: 5.1
Proper shipping name: NITRATES, INORGANIC, N.O.S.	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: No		
<b>IMDG</b>		
UN number: 1477	Packing group: II	EMS-No: no data available
Proper shipping name: NITRATES, INORGANIC, N.O.S.		
<b>IATA</b>		
UN number: 1477	Packing group: II	Class: 5.1
Proper shipping name: NITRATES, INORGANIC, N.O.S.		

### SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### SECTION 16: Other information

<b>Prepared By</b>	Regulatory Affairs ALADDIN SCIENTIFIC CORPORATION Email: <a href="mailto:QualityAssurance@aladdinsci.com">QualityAssurance@aladdinsci.com</a>
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