



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Yttrium (III) Nitrate Hexahydrate**
PRODUCT NUMBER: 3856
CAS NUMBER: 13494-98-9
SYNONYMS: Nitric Acid, yttrium (3+) salt, hexahydrate
MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



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 Phrases

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/fume/gas/mist/vapors/spray.
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	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.
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.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

HMIS CLASSIFICATION:

Health: 2 Fire: 0 Reactivity Hazard: 2

NFPA RATING:

Health: 2 Flammability: 0 Reactivity Hazard: 2 Specific Hazard: OX

EYE CONTACT: Causes slight to mild irritation of the eyes.

SKIN CONTACT: Causes slight to mild irritation of the skin.

INHALATION: Irritating to the nose, mucous membranes, and respiratory tract.

INGESTION: May be harmful if swallowed.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $Y(NO_3)_3 \cdot 6H_2O$

Molecular Weight: 383.01

CHEMICAL NAME	CAS#	%
Yttrium (III) Nitrate Hexahydrate	13494-98-9	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Not available

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Carbon dioxide, extinguishing powder, or foam. Water may be ineffective but may be used for cooling exposed containers.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Nitrogen oxides and yttrium oxides.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid dust formation or breathing dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Small spills can be mixed with vermiculite or sodium carbonate and swept up and placed in proper container for disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Avoid contact with skin and eyes. Keep away from sources of ignition-No smoking. Keep away from heat.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Hygroscopic. Store away from flammable substances, reducing agents, organic materials, metal powders, water, and moisture. Store under dry inert gas. Protect from humidity and water.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS

Component	Exposure Limits	Basis	Entity
Yttrium (III) nitrate hexahydrate	1 mg/m ³	TLV	ACGIH
	1 mg/m ³	PEL	OSHA
	1 mg/m ³	REL	NIOSH

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

EYE PROTECTION: Wear chemical safety glasses or goggles.

SKIN PROTECTION: Wear nitrile or rubber gloves, apron, or lab coat.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Off-white solid

ODOR: None

MOLECULAR WEIGHT: 383.01

BOILING POINT: Not available

MELTING POINT: Not available

SPECIFIC GRAVITY: 2.682 gm/ml

VAPOR DENSITY: No data available

SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Contact with strong reducing agents or organic matter. Some nitrates can explode if heated to high temperatures.

INCOMPATIBILITY: Flammable substances, reducing agents, water, moisture, organic materials, metal powders, and strong acids.

DECOMPOSITION PRODUCTS: Nitrogen oxides and yttrium oxides

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: Subcutaneous (mouse); LDLo: 16600 mg/kg. Subcutaneous (frog); LDLo: 350 mg/kg.

CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.

MUTAGENIC EFFECTS: Not available

TETRAOGENIC EFFECTS: Not available

RTECS: ZG3750000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

UN1477

Nitrates, inorganic, n.o.s.

(Yttrium (III) Nitrate)

CLASS 5.1

PG II

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Not listed in the TSCA inventory

SARA 302/304: Not Listed

SARA 311/312: Reactivity hazard, acute health hazard.

SARA (TITLE 313): Not Listed

CALIFORNIA PROP. 65: Not Listed

PENNSYLVANIA RIGHT TO KNOW: Yttrium (III) nitrate hexahydrate

NEW JERSEY RIGHT TO KNOW: Yttrium (III) nitrate hexahydrate

WHMIS CANADA: Class C: Oxidizing materials. Class D-2B: Toxic materials causing other toxic effects.

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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