



# SAFETY DATA SHEET

ProChemOnline.com



## SECTION 1

## PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Cerium (III) Nitrate Hexahydrate**  
PRODUCT NUMBER: 1423-1  
CAS NUMBER: 10294-41-4  
SYNONYMS: Cerous nitrate hexahydrate, nitric acid, cerium (3+) salt  
**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. |
| H318 | Causes serious eye damage.    |

### Precautionary Phrases

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P210           | Keep away from heat.                                                                                                             |
| P220           | Keep/Store away from clothing/combustible materials.                                                                             |
| P221           | Take any precaution to avoid mixing with combustibles.                                                                           |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.                                                       |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310           | Immediately call a POISON CENTER or doctor/physician.                                                                            |
| P370+P378      | In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.                                           |

### HMIS CLASSIFICATION:

Health: 2      Chronic: \*      Fire: 0      Reactivity Hazard: 2

### NFPA RATING:

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

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

**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:** Ingestion may lead to dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, and convulsions.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula:  $\text{Ce}(\text{NO}_3)_3 \cdot 6\text{H}_2\text{O}$

Molecular Weight: 434.22

| CHEMICAL NAME                    | CAS#       | %   |
|----------------------------------|------------|-----|
| Cerium (III) Nitrate Hexahydrate | 10294-41-4 | 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. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.

**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:** Contact with combustible material may cause fire.

**AUTO IGNITION TEMPERATURE:** Not available

**EXPLOSION LIMITS:** Not available

**EXTINGUISHING MEDIUM:** Carbon dioxide, extinguishing powder, or water spray. Fight large fires with water spray or alcohol resistant foam. This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

**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 cerium oxides.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

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

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers 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. Avoid formation of dust. Keep away from heat and sources of ignition.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated area. Store under inert gas. Air sensitive. Hygroscopic. Store away from flammable substances, reducing agents, metal powders, water, and moisture. Do not store with organic materials.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

**EXPOSURE CONTROLS:** Contains no substances with occupational exposure limit values.

**EYE PROTECTION:** Wear chemical safety glasses or goggles and face shield.

**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:** White to yellow solid

**ODOR:** None

**MOLECULAR WEIGHT:** 434.22

**BOILING POINT:** No data available

**MELTING POINT:** 65° C

**SPECIFIC GRAVITY:** No data available

**VAPOR DENSITY:** No data available

**SOLUBILITY:** Vary soluble

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Hygroscopic. Air sensitive.

**INCOMPATIBILITY:** Strong reducing agents and strong acids.

**DECOMPOSITION PRODUCTS:** Nitrogen oxides and cerium oxides.

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** LD50 Oral – rat – 4,200 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

**TETRATOGENIC EFFECTS:** Not available

**RTECS:** FK6300000

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

Marine Pollutant: No

Nitrates, inorganic, n.o.s.

(Cerium (III) Nitrate Hexahydrate)

Class 5.1

PG II

## **SECTION 15 REGULATORY INFORMATION**

**TSCA:** Not listed in the TSCA inventory

**SARA 302/304:** Not listed

**SARA 311/312:** Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard

**SARA (TITLE 313):** Not listed

**PENNSYLVANIA RIGHT TO KNOW:** Cerium (III) nitrate hexahydrate

**NEW JERSEY RIGHT TO KNOW:** Cerium (III) nitrate hexahydrate

**CALIFORNIA PROP. 65:** Not Listed

## **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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