

# MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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## SECTION 1 Product Identification

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**CHEMICAL NAME:** Cerium (III) nitrate hexahydrate

**CAS #:** 10294-41-4

**FORMULA:** Ce(NO<sub>3</sub>)<sub>3</sub>.6H<sub>2</sub>O

**SYNONYM:** Cerous nitrate hexahydrate, nitric acid, cerium (3+)salt

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## SECTION 2 Composition and Information on Ingredients

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INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	10294-41-4	100	no data	no data

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## SECTION 3 Hazards Identification

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**EMERGENCY OVERVIEW:** Irritating to skin, eyes and respiratory tract.

**PRIMARY ROUTES OF EXPOSURE:** Ingestion

**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.

**CHRONIC HEALTH EFFECTS:** No information available on long-term chronic effects.

**ACUTE HEALTH EFFECTS:** Irritating to skin, eyes and respiratory tract.

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## SECTION 4 First Aid Measures

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**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 the victim to fresh air. 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.

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## **SECTION 5                      Firefighting Measures**

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**FLASH POINT:** not applicable

**AUTO IGNITION TEMPERATURE:** none

**EXPLOSION LIMITS:** none

**EXTINGUISHING MEDIUM:** carbon dioxide, foam or dry powder

**SPECIAL FIREFIGHTING PROCEDURES:** If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** If involved in a fire this material may emit irritating fumes.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:**

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## **SECTION 6                      Accidental Release Measures**

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**SPILL AND LEAK PROCEDURES:** Small spills can be mixed with vermiculite or sodium carbonate and swept up.

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## **SECTION 7                      Handling and Storage**

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**HANDLING AND STORAGE:** Store material in a tightly sealed container. Keep away from heat and direct sunlight.

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## **SECTION 8                      Exposure Controls and Personal Protection**

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**EYE PROTECTION:** Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

**SKIN PROTECTION:** Chemical-resistant.

**VENTILATION:** If possible, handle the material in an efficient fume hood.

**RESPIRATOR:** If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

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## **SECTION 9                      Physical and Chemical Properties**

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**COLOR AND FORM:** white xtl.

**MOLECULAR WEIGHT:** 326.17 (434.23)

**MELTING POINT (DEG. C.):** none

**BOILING POINT:** no data

**VAPOR PRESSURE:** not applicable

**SPECIFIC GRAVITY:** no data

**SOLUBILITY IN WATER:** very soluble

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## **SECTION 10                    Stability and Reactivity**

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**STABILITY:** air and moisture stable

**HAZARDOUS POLYMERIZATION:** no hazardous polymerization

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

**INCOMPATIBILITY:** reducing agents, organic matter, phosphorus and sulfur

**DECOMPOSITION PRODUCTS:** nitrogen oxides and cerium salts.

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## **SECTION 11 Toxicological Information**

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**RTECS DATA:** Administration onto the skin (rabbit); Standard Draize test: 500 mg/24H. Administration into the eye (rabbit); Standard Draize test: 100 mg. Oral (rat); LD50: 4200 mg/kg. Intraperitoneal (rat); LD50: 290 mg/kg. Intravenous (rat); LD50: 4 mg/kg. Intraperitoneal (mouse); LD50: 470 mg/kg.

**MUTAGENIC EFFECTS:** no data

**TETRAOGENIC EFFECTS:** no data

**CARCINOGENIC EFFECTS:** no data

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

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## **SECTION 12 Ecological Information**

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**ECOLOGICAL INFORMATION:** No information available

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## **SECTION 13 Disposal Considerations**

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**DISPOSAL:** Dispose of in according to local state and federal regulations.

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## **SECTION 14 Transportation Information**

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Nitrates, inorganic, n.o.s., Class 5.1, UN 1477, PG II

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## **SECTION 15 Regulatory Information**

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

**SARA (TITLE 313):** Title compound : See category N511 for reporting.

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## **SECTION 16 Other Information**

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