



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Cerium (IV) Ammonium Nitrate**
PRODUCT NUMBER: 1404
CAS NUMBER: 16774-21-3
SYNONYMS: Ammonium cerium (IV) nitrate, Ammonium hexanitratocerate (IV), Ceric ammonium nitrate, diammonium cerium nitrate

MANUFACTURER:

ProChem, Inc.
826 Roosevelt Road
Rockford, IL 61109

PHONE: 815-398-1788
FAX: 815-398-1810
TOLL FREE: 800-795-8788

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H272	May intensify fire, oxidizer.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
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.
P270	Do not eat, drink, or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P303+P361+P330	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378	In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.

HMIS CLASSIFICATION:

Health: 2 Fire: 0 Reactivity Hazard: 2

NFPA RATING:

Health: 3 Flammability: 3 Reactivity Hazard: 3 Special: OX

EYE CONTACT: Causes serious eye irritation.

SKIN CONTACT: Causes skin irritation.

INHALATION: May cause respiratory irritation.

INGESTION: Harmful if swallowed.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $(\text{NH}_4)_2\text{Ce}(\text{NO}_3)_6$

Molecular Weight: 548.22

CHEMICAL NAME	CAS#	%
Cerium (IV) Ammonium Nitrate	16774-21-3	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: Not available

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, ammonia, and cerium oxide fume.

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.

SECTION 7 HANDLING AND STORAGE (Cont.)

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Store under inert gas. Store away from flammable substances, reducing agents, strong bases, metal powders. Do not store with organic materials and acids.

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: Orange red solid

ODOR: Pungent

MOLECULAR WEIGHT: 548.22

BOILING POINT: No data available

MELTING POINT: 107° C

SPECIFIC GRAVITY: No data available

VAPOR DENSITY: No data available

SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Avoid moisture

INCOMPATIBILITY: Strong reducing agents, organic materials, and powdered metals.

DECOMPOSITION PRODUCTS: Nitrogen oxides, ammonia, and cerium oxide fume.

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – rat - > 300 – 2,000 mg/kg (OECD Test Guideline 401)

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: CQ9800000

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

UN3085

Marine Pollutant: No

Oxidizing solid, corrosive, n.o.s.

(Cerium (IV) Ammonium Nitrate)

Class 5.1 (8)

PG II

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 302/304: Not listed

SARA 311/312: Reactivity Hazard, Acute Health Hazard

SARA (TITLE 313): Not listed

PENNSYLVANIA RIGHT TO KNOW: Cerium (IV) Ammonium Nitrate

NEW JERSEY RIGHT TO KNOW: Cerium (IV) Ammonium Nitrate

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.

DATE REVISED: 09/23

SDS DEPT.