

## Safety Data Sheet

### SECTION 1: Identification

#### 1.1. Product Identifier

**Trade Name or Designation:** Ceric Ammonium Nitrate, ACS Reagent  
(Ammonium Cerium (IV) Nitrate)

**Product Number:** 1-17152

**Other Identifying Product Numbers:** 1-17152-1

#### 1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

#### 1.3. Details of the Supplier of the Safety Data Sheet

**Company:** Reagents Inc.

**Address:** 4746 Sweden Road  
Charlotte, NC 28224 USA

**Telephone:** 800-732-8484

#### 1.4. Emergency Telephone Number (24 hr)

CHEMTREC (USA) 800-424-9300  
CHEMTREC (International) 1+ 703-527-3887

### SECTION 2: Hazard(s) Identification

#### 2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

| Hazard Class            | Category   | Hazard    |                                         |
|-------------------------|------------|-----------|-----------------------------------------|
|                         |            | Statement | Precautionary Statements                |
| Acute Toxicity - Oral   | Category 4 | H302      | P264, P270, P301+P312, P330, P501       |
| Eye Damage / Irritation | Category 1 | H318      | P280, P305+P351+P338, P310              |
| Oxidizing Solids        | Category 2 | H272      | P210, P220, P221, P280, P370+P378, P501 |

#### 2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

## Safety Data Sheet

### Hazard Statements:

| Hazard Number | Hazard Statement              |
|---------------|-------------------------------|
| H272          | May intensify fire; oxidizer. |
| H302          | Harmful if swallowed.         |
| H318          | Causes serious eye damage.    |

### Precautionary Statements:

| Precautionary Number | Precautionary Statement                                                                                                          |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------|
| P210                 | Keep away from heat, sparks and open flame. No smoking.                                                                          |
| P220                 | Keep away from clothing and other combustible materials.                                                                         |
| P221                 | Take any precaution to avoid mixing with combustibles.                                                                           |
| P264                 | Wash arms, hands and face thoroughly after handling.                                                                             |
| P270                 | Do not eat, drink or smoke when using this product.                                                                              |
| P280                 | Wear protective gloves and eye protection.                                                                                       |
| P301+P312            | IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.                                                              |
| 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 physician.                                                                                   |
| P330                 | Rinse mouth.                                                                                                                     |
| P370+P378            | In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.                                                         |
| P501                 | Dispose of contents in accordance with local, state, federal and international regulations.                                      |

### 2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

### 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Substance or Mixture

| Chemical Name          | Formula              | Molecular Weight    | CAS Number | Weight% |
|------------------------|----------------------|---------------------|------------|---------|
| Ceric Ammonium Nitrate | $Ce(NH_4)_2(NO_3)_6$ | Data not available. | 16774-21-3 | 100.00% |



## Safety Data Sheet

### SECTION 4: First-Aid Measures

#### 4.1. General First Aid Information

**Eye Contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Causes severe irritation, redness, pain, tearing and burns.

**Inhalation:** Not expected to require first aid. If necessary, remove to fresh air.

**Skin Contact:** Causes irritation to skin, symptoms include redness, itching, and pain.

**Ingestion:** IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Do not induce vomiting. Give large quantity of water. Call a physician immediately.

#### 4.2. Most Important Symptoms and Effects, Acute and Delayed

DANGER! Strong oxidizer. Contact with other material may cause fire. Causes irritation to eyes, skin, and respiratory tract. Wash areas of contact with water. EYE CONTACT: Causes severe irritation, redness, pain, tearing and burns. SKIN CONTACT: Causes irritation to skin, symptoms include redness, itching, and pain. CHRONIC EFFECTS / CARCINOGENICITY: Prolonged exposures can lead to methemoglobinemia (decrease in blood's oxygen-carrying capabilities).

#### 4.3. Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician.

### SECTION 5: Fire-Fighting Measures

#### 5.1. Extinguishing Media

In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Use any means suitable for extinguishing surrounding fire.

#### 5.2. Specific Hazards Arising from the Substance or Mixture

May intensify fire; oxidizer. Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Increases flammability of any combustible substance in contact with it. Contact with oxidizable substances may cause extremely violent combustion.

#### 5.3. Special Protective Equipment for Firefighters

Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

### SECTION 6: Accidental Release Measures

#### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

#### 6.2. Cleanup and Containment Methods and Materials

Ventilate area of leak or spill. Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.



## Safety Data Sheet

### SECTION 7: Handling and Storage

#### 7.1. Precautions for Safe Handling and Storage Conditions

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Keep out of direct sunlight and away from heat, water, and incompatible materials.

### SECTION 8: Exposure Controls / Personal Protection

#### 8.1. Control Parameters

| Chemical Name          | Limit Type | Country | Exposure Limit | Information Source |
|------------------------|------------|---------|----------------|--------------------|
| Data not available. () |            |         |                |                    |

#### 8.2. Exposure Controls

**Engineering Controls:** No specific controls are needed. Normal room ventilation is adequate.

**Respiratory Protection:** A system of local or general exhaust is recommended. If necessary, wear a dust mask respirator to minimize exposure to dust particles.

**Skin Protection:** Wear protective gloves and eye protection. Chemical resistant gloves.

**Eye Protection:** Wear protective gloves and eye protection. Safety glasses or goggles.

#### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. A system of local or general exhaust is recommended. If necessary, wear a dust mask respirator to minimize exposure to dust particles. Chemical resistant gloves. Safety glasses or goggles.

## Safety Data Sheet

### SECTION 9: Physical and Chemical Properties

#### 9.1. Basic Physical and Chemical Properties

**Appearance:** Orange-red or orange-yellow solid

**Physical State:** Solid

**Odor:** None

**Odor Threshold:** Not applicable.

**pH:** 1 (5% solution)

**Melting/Freezing Point:** Data not available.

**Initial Boiling Point /Range:** Data not available.

**Flash Point:** Not applicable.

**Evaporation Rate:** Not applicable.

**Flammability:** Data not available.

**Flammability/Explosive Limits:** Not applicable. - Not applicable.

**Vapor Pressure:** Data not available.

**Vapor Density:** Data not available.

**Relative Density:** 2.49

**Solubility:** 1410 G/L @ 20°C

**Partition Coefficient (n-Octanol/Water):** Data not available.

**Auto-Ignition Temperature:** Not applicable.

**Decomposition Temperature:** 185°C

**Viscosity:** Data not available.

**Explosive Properties:** Data not available.

**Oxidizing Properties:** Data not available.

### SECTION 10: Stability and Reactivity

#### 10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

#### 10.2. Possibility of Hazardous Reactions

Data not available.

#### 10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, sparks and open flame. No smoking. Keep away from clothing and other combustible materials. Take any precaution to avoid

#### 10.4. Hazardous Decomposition Products

Will not occur.



## Safety Data Sheet

### SECTION 11: Toxicological Information

#### 11.1. Information on Toxicological Effects

**Acute Toxicity - Oral Exposure:**

Harmful if swallowed. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. Dispose of contents in accordance with local, state, federal and international regulations.

**Acute Toxicity - Dermal Exposure:**

Not applicable.

**Acute Toxicity - Inhalation Exposure:**

Not applicable.

**Acute Toxicity - Other Information:**

No LD50 information available.

**Skin Corrosion and Irritation:**

Not applicable.

**Serious Eye Damage and Irritation:**

Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

**Respiratory Sensitization:**

Not applicable.

**Skin Sensitization:**

Not applicable.

**Germ Cell Mutagenicity:**

Not applicable.

**Carcinogenicity:**

Not applicable.

**Reproductive Toxicity:**

Not applicable.

**Specific Target Organ Toxicity from Single Exposure:**

Not applicable.

**Specific Target Organ Toxicity from Repeated Exposure:**

Not applicable.

**Aspiration Hazard:**

Not applicable.

**Additional Toxicology Information:**

Data not available.

## Safety Data Sheet

### SECTION 12: Ecological Information

#### 12.1. Ecotoxicity

Not applicable.

#### 12.2. Persistence and Degradability

Data not available.

#### 12.3. Bioaccumulative Potential

Data not available.

#### 12.4. Mobility in Soil

Data not available.

#### 12.5. Other Adverse Ecological Effects

Data not available.

### SECTION 13: Disposal Considerations

#### 13.1. Waste Treatment Methods

Data not available.

### SECTION 14: Transportation Information

#### 14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

**UN Number:** UN1477

**Proper Shipping Name:** Nitrates, Inorganic, n.o.s.

**Hazard Class:** 5.1

**Packing Group:** II

**Hazard Placard Labels:**



## Safety Data Sheet

### 14.2. Transportation by Air - International Air Transport Association (IATA)

**UN Number:** UN1477

**Proper Shipping Name:** Nitrates, Inorganic, n.o.s.

**Hazard Class:** 5.1

**Packing Group:** II

**Hazard Placard Labels:**



## SECTION 15: Regulatory Information

### 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

### 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Not listed.

### 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Not listed.

### 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Ceric Ammonium Nitrate (CAS # 16774-21-3): 1.0 % de minimis concentration (10% of total aqueous Ammonia is reportable under this listing)

### 15.5. Massachusetts Right-to-Know Substance List

Not listed.

### 15.6. Pennsylvania Right-to-Know Hazardous Substances

Not listed.

### 15.7. New Jersey Worker and Community Right-to-Know Components

Ceric Ammonium Nitrate (CAS # 16774-21-3): sn 3722

Ceric Ammonium Nitrate (CAS # 16774-21-3): SN 3722 TPQ: 500 lb (water dissociable, Category Code N511)

### 15.8. California Proposition 65

Not listed.

### 15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Ceric Ammonium Nitrate (CAS # 16774-21-3): Present

### 15.10. United States of America Toxic Substances Control Act (TSCA) List

Ceric Ammonium Nitrate (CAS # 16774-21-3): Present

## Safety Data Sheet

**15.11. European Inventory of Existing Commercial Chemical Substances (EINECS),  
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)**  
Not listed.

### SECTION 16: Other Information

#### 16.1. Full Text of Hazard Statements and Precautionary Statements

May intensify fire; oxidizer. Harmful if swallowed. Causes serious eye damage.

Keep away from heat, sparks and open flame. No smoking. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves and eye protection.

IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. Rinse mouth. In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.

Dispose of contents in accordance with local, state, federal and international regulations.

#### 16.2. Miscellaneous Hazard Classes

**Canadian Carcinogenicity Hazard Class:** Not Applicable.

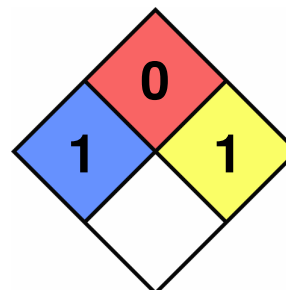
**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

**Health Hazards Not Otherwise Classified (HHNOC):** Not Applicable.

**Biohazardous Infectious Materials Hazard Class:** Not Applicable.

#### 16.3. National Fire Protection Association (NFPA) Rating

**Health:** 1  
**Flammability:** 0  
**Reactivity:** 1  
**Special Hazard:**



#### 16.4. Document Revision

**Last Revision Date:** 8/24/2016



## Safety Data Sheet

### DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and REAGENTS, INC. assumes no legal responsibility or liability whatsoever resulting from its use.