



## Safety Data Sheet

Classified according to WHMIS 2015

### SECTION 1: Identification

#### 1.1. Product Identifier

**Trade Name or Designation:** Ammonium Nitrate, 50% (w/v)

**Product Number:** R0678300

**Other Identifying Product Numbers:** R0678300-55E

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

General Laboratory Reagent

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

**Company:** Ricca Chemical Company

**Address:** 448 West Fork Drive

Arlington, TX 76012 USA

**Telephone:** 888-467-4222

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

CHEMTREC (USA) 800-424-9300

CHEMTREC (International) 1+ 703-527-3887

### SECTION 2: Hazard(s) Identification

#### 2.1. Classification of the Substance or Mixture

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

Hazard Class	Category	Hazard Statements	Precautionary Statements:
Eye Damage / Irritation	Category 2	H319	P264, P280, P305+P351+P338, P337+P313
Oxidizing Liquids	Category 3	H272	P210, P220, P221, P280, P370+P378, P501

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### 2.2. GHS Label Elements

Pictograms:



Signal Word: **Warning**

Hazard Statements:

Hazard Number	Hazard Statement
H272	May intensify fire; oxidizer.
H319	Causes serious eye irritation.

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.
P280	Wear protective gloves and eye 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.
P337+P313	If eye irritation persists: Get medical attention.
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.

### 2.4. 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%
Water	H <sub>2</sub> O	18.01 g/mol	7732-18-5	57.92
Ammonium Nitrate	NH <sub>4</sub> NO <sub>3</sub>	80.04 g/mol	6484-52-2	42.08



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### 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. May cause irritation, redness, pain, and tearing.

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

**Skin Contact:** May cause irritation, redness, and pain.

**Ingestion:** Dilute immediately with water or milk. Vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Call a physician immediately.

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

Causes serious eye irritation. CAUTION! Oxidizer. Contact with other material may cause fire. May cause irritation to areas of contact. Wash areas of contact with water. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: May cause irritation, redness, 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

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Dilute immediately with water or milk. Vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Call a physician immediately.

### SECTION 5: Fire-Fighting Measures

#### 5.1. Extinguishing Media

In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Use dry chemical, alcohol foam, or carbon dioxide for extinguishing the surrounding fire. Use water as fog in flooding quantities.

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

May intensify fire; oxidizer. Strong oxidizer. If heated under confinement, material may explode. Ammonium nitrate of any grade including fertilizer, when contaminated with oil, charcoal, or other organic materials should be considered an explosive capable of detonation by combustion or by explosion of adjacent explosive materials. Combustion by-products include oxides of nitrogen, ammonia. Closed containers may rupture violently when heated.

#### 5.3. Special Protective Equipment for Firefighters

Wear full protective clothing and positive pressure self-contained breathing apparatus.



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### 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

Prompt cleanup and removal are necessary in order to prevent contamination with combustible materials.

### 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 away from combustibles, ignition sources, organic materials, or other oxidizable substances. Containers may be hazardous when empty since they retain product residues.

### 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:** Normal room ventilation is adequate.

**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. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.



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### SECTION 9: Physical and Chemical Properties

#### 9.1. Basic Physical and Chemical Properties

**Appearance:** Colorless liquid

**Physical State:** Liquid

**Odor:** Data not available.

**Odor Threshold:** Data not available.

**pH:** Data not available.

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

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

**Flash Point:** Data not available.

**Evaporation Rate:** Data not available.

**Flammability:** Data not available.

**Flammability/Explosive Limits:** Data not available.

**Vapor Pressure:** Data not available.

**Vapor Density:** Data not available.

**Relative Density:** 1.19

**Solubility:** Miscible

**Partition Coefficient:** Data not available.

**Auto-Ignition Temperature:** Data not available.

**Decomposition Temperature:** Data not available.

**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.

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### 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 mixing with combustibles. Powdered metals (aluminum, antimony, bismuth, cadmium, chromium, cobalt, iron, lead, magnesium, manganese, nickel, potassium, zinc, brass), oil, charcoal, organic material, acetic acid, ammonium chloride, chlorides, phosphorus, ammonium sulfate, sodium, sodium hypochlorite, sodium perchlorate, sodium-potassium alloy, and sulfur.

### 10.4. Hazardous Decomposition Products

Will not occur.

## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

#### Acute Toxicity - Oral Exposure:

Not applicable.

#### Acute Toxicity - Dermal Exposure:

Not applicable.

#### Acute Toxicity - Inhalation Exposure:

Not applicable.

#### Acute Toxicity - Other Information:

LD50, Oral, Rat: (Ammonium Nitrate) 2217 mg/kg, details of toxic effects not reported other than lethal dose value.

#### Skin Corrosion and Irritation:

Not applicable.

#### Serious Eye Damage and Irritation:

Causes serious eye irritation. Wash arms, hands and face thoroughly after handling. 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. If eye irritation persists: Get medical attention.

#### 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.



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

Not applicable.

**Aspiration Hazard:**

Not applicable.

**Additional Toxicology Information:**

Data not available.

### 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.

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## SECTION 14: Transportation Information

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

**Sizes:** 55 Gal

**UN Number:** UN3218

**Proper Shipping Name:** Nitrates, inorganic, aqueous solution, n.o.s.

**Hazard Class:** 5.1

**Packing Group:** III

**Hazard Label(s):**



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

**Sizes:** 55 Gal

**UN Number:** UN3218

**Proper Shipping Name:** Nitrates, inorganic, aqueous solution, n.o.s.

**Hazard Class:** 5.1

**Packing Group:** III

**Hazard Label(s):**



### 14.3 Transportation of Dangerous Goods (TDG, Canada)

**Sizes:** 55 Gal

**UN Number:** UN3218

**Proper Shipping Name:** NITRATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.

**Hazard Class:** 5.1

**Packing Group:** III

**Hazard Label(s):**





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## 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)

Ammonium Nitrate (CAS # 6484-52-2): "1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N511)" As Nitrate compounds, water dissociable [RR-03804-0];

"1.0 % de minimis concentration (10% of total aqueous Ammonia is reportable under this listing)" As Aqueous ammonia from water dissociable ammonium salts and other sources [RR-47925-4]

Ammonium Nitrate (CAS # 6484-52-2): 1.0 % de minimis concentration (10% of total aqueous Ammonia is reportable under this listing)

Ammonium Nitrate (CAS # 6484-52-2): 1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N511)

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

Ammonium Nitrate (CAS # 6484-52-2): Present

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

Ammonium Nitrate (CAS # 6484-52-2): Environmental hazard

Ammonium Nitrate (CAS # 6484-52-2): Present

Water (CAS # 7732-18-5): "Present" As Ethyl alcohol and water [RR-00802-6]

Water (CAS # 7732-18-5): Present

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

Ammonium Nitrate (CAS # 6484-52-2): "SN 3722 500 lb TPQ (water dissociable, Category Code N511)" As Nitrate compounds [RR-01770-9]

Ammonium Nitrate (CAS # 6484-52-2): "sn 3722" As Nitrate compounds [RR-01770-9]

Ammonium Nitrate (CAS # 6484-52-2): reactive - third degree

Ammonium Nitrate (CAS # 6484-52-2): sn 0106

Ammonium Nitrate (CAS # 6484-52-2): sn 3722

Ammonium Nitrate (CAS # 6484-52-2): SN 3722 500 lb TPQ (water dissociable, Category Code N511)

### 15.8. California Proposition 65

Not listed.

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

Ammonium Nitrate (CAS # 6484-52-2): Present (DSL)

Water (CAS # 7732-18-5): Present (DSL)

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

All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.

Ammonium Nitrate (CAS # 6484-52-2): Present (ACTIVE)

Water (CAS # 7732-18-5): Present (ACTIVE)

### 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Ammonium Nitrate (CAS # 6484-52-2): 229-347-8

Water (CAS # 7732-18-5): 231-791-2

## SECTION 16: Other Information

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

May intensify fire; oxidizer. Causes serious eye irritation.

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. 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. If eye irritation persists: Get medical attention. 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.

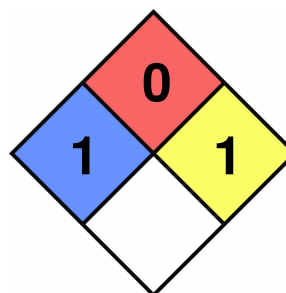
**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

**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:**





## Safety Data Sheet

### 16.4. Document Revision

**Last Revision Date:** 2023-09-11

### 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 RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.