



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Ammonium Nitrate, ACS Reagent Grade

Product Number RDCA0455

Other Identifying Product Numbers RDCA0455-10F4, RDCA0455-15KG, RDCA0455-500B1

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 412 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

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SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

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

2.2. GHS Label Elements

Pictograms:



Signal Word: **Warning**

Hazard Statements:

NOTE: Hazard statements may be combined on labels to improve clarity and readability.

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

Precautionary Statements:

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

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Prevention

Precautionary Number	Precautionary Statement
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep away from clothing and other combustible materials.
P264	Wash hands, arms, and face thoroughly after handling.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
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 advice or attention.
P370+P378	In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish.

Disposal

Precautionary Number	Precautionary Statement
P501	Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations.

2.3. Hazards not Otherwise Classified

No other hazards identified.

2.4. Ingredients of Unknown Acute Toxicity

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
azanium nitrate	Ammonium Nitrate	6484-52-2	100.00

SECTION 4: First-Aid Measures

4.1. Description of Necessary Measures

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.

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.

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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.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Causes serious eye irritation 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. Immediate Medical Attention or Special Treatment Needed

Not expected to require special treatment.

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 in a Fire

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 and Precautions for Firefighters

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

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

Keep in a tightly closed container. Store in a cool, dry, ventilated area. Protect against physical damage. Separate from incompatible materials, such as combustibles, organics, or other oxidizable materials. Containers of this material may be hazardous when empty since they retain product residues.

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SECTION 8: Exposure Controls / Personal Protection

8.1. Exposure Limits

U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)

No limits found.

U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits

No limits found.

U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)

No limits found.

U.S. OSHA - Specifically Regulated Chemicals

No limits found.

ACGIH - Threshold Limit Values - Ceilings (TLV-C)

No limits found.

ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

No limits found.

ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

No limits found.

8.2. Engineering Controls

No specific controls are needed. Normal room ventilation is adequate.

8.3. Individual Protective Measures and Personal Protective Equipment

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: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	solid
Color:	Colorless/white
Odor:	odorless
Odor Threshold:	Data not available.
Melting/Freezing Point:	170°C
Boiling Point/Range:	210°C (with decomposition)
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Flash Point:	> 93.3°C (200°F)
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	210°C
pH:	4.5-6.0 (5% solution)
Kinematic Viscosity:	Data not available.
Solubility:	1920 g/L at 20°C
Vapor Pressure:	1013 hPa at 135°C
Evaporation Rate:	Data not available.
Relative Density:	1.72
Relative Vapor Density:	Data not available.
Particle Characteristics:	Data not available.
Partition Coefficient n-octanol/water, log	-3.1 at 25°C

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, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing and other combustible materials. 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, and ammonium sulfate, sodium, sodium hypochlorite, sodium perchlorate, sodium-potassium alloy, and sulfur.

10.4. Hazardous Decomposition Products

Will not occur.

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SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 2217 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Ammonium Nitrate	6484-52-2	Oral LD50 Rat 2217 mg/kg (Source: NLM_CIP)

Acute Toxicity - Dermal Exposure:

No information found.

Acute Toxicity - Inhalation Exposure:

No information found.

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
No data found.		

National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
No data found.		

U.S. OSHA specifically regulated carcinogens

Chemical Name	CAS Number	Classification
No data found.		

11.3 Additional Toxicology Information:

Causes serious eye irritation.

SECTION 12: Ecological Information

12.1. Ecotoxicity

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Chemical Name	CAS Number	Species	Exposure	Toxicity
	No data found.	None	None	

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)

Sizes: 10 K, 15 K, 500 g

UN Number: UN1942

Proper Shipping Name: Ammonium Nitrate

Hazard Class: 5.1

Packing Group: III

Hazard Label(s):





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

Sizes: 10 K, 15 K, 500 g

UN Number: UN1942

Proper Shipping Name: Ammonium Nitrate

Hazard Class: 5.1

Packing Group: III

Hazard Label(s):



14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 10 K, 15 K, 500 g

UN Number: UN1942

Proper Shipping Name: AMMONIUM NITRATE

Hazard Class: 5.1

Packing Group: III

Hazard Label(s):



SECTION 15: Regulatory Information

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15.01. Occupational Safety and Health Administration (OSHA) Hazards

Chemical Name	CAS Number	Regulatory Information
No data found.		

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

Chemical Name	CAS Number	RQ
No data found.		

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

Chemical Name	CAS Number	Regulatory Information
No data found.		

15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

Chemical Name	CAS Number	List	Regulatory Information
Ammonium Nitrate	6484-52-2	Emission Reporting	"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]

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Ammonium Nitrate	6484-52-2	Present

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Ammonium Nitrate	6484-52-2	Environmental hazard

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15.07. New Jersey Worker and Community Right-to-Know Components

Chemical Name	CAS Number	Regulatory Information
Ammonium Nitrate	6484-52-2	sn 0106

15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
No data found.		

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

Chemical Name	CAS Number	List	Status
Ammonium Nitrate	6484-52-2	DSL	Present

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

Chemical Name	CAS Number	Status
Ammonium Nitrate	6484-52-2	Present (ACTIVE)

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

Chemical Name	CAS Number	List	Number
Ammonium Nitrate	6484-52-2	EINECS	229-347-8

15.12. China - Inventory of Existing chemical Substances (IECSC)

Chemical Name	CAS Number	Status
Ammonium Nitrate	6484-52-2	Present [35581]

15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

Chemical Name	CAS Number	List	Status
Ammonium Nitrate	6484-52-2	Annex 1	Present [KE-01715]

15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Ammonium Nitrate	6484-52-2	(1)-395

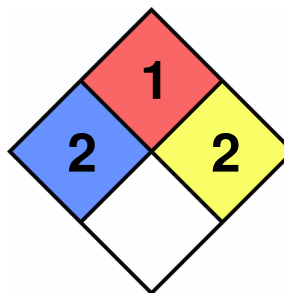
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SECTION 16: Other Information

16.1 National Fire Protection Associate (NFPA) Rating

Health: 2
Flammability: 1
Reactivity: 2
Special Hazard:



16.2 Document Revision

Last Revision Date:
2026-05-06

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.