

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name	Ammonium nitrate
CAS number	6484-52-2
Synonyms	Nitric acid ammonium salt

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals
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#### 1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

#### 1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing solids - Category 3  
Serious Eye Damage/Eye Irritation - Category 2

#### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Warning

**Hazard statements**

May intensify fire; oxidizer  
Causes serious eye irritation

**Precautionary Statements**

Prevention Keep/Store away from clothing/other combustible materials  
Take any precaution to avoid mixing with combustibles  
Use only outdoors or in a well-ventilated area  
Wear protective gloves/protective clothing/eye protection/face protection  
Wash face, hands and any exposed skin thoroughly after handling  
Wear eye/face protection

Eyes 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 advice/attention

Fire Explosion risk in case of fire  
In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.  
Evacuate area

Storage Store in well-ventilated place. Keep cool

Disposal Dispose of contents/container to an approved waste disposal plant

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS**

None identified

**SECTION 3: Composition/information on ingredients**

**3.1 Components**

Chemical name	Common name and synonyms	CAS number	Concentration
Ammonium nitrate	Nitric acid ammonium salt (Granular/Certified ACS)	6484-52-2	>99%

**SECTION 4: First aid measures**

**4.1 Description of first-aid measures**

**General advice**

**If inhaled** Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.

**In case of skin contact** Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**In case of eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**If swallowed** Do NOT induce vomiting. Get medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

Irritating to eyes.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media** No information available

**Unsuitable extinguishing media** No information available

#### 5.2 Specific hazards arising from the substance or mixture

Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood paper, oil, clothing, etc). Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

#### 5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 5.4 Further information

**Flash Point** No information available

**Autoignition Temperature** No information available

##### Explosion limits

**Upper** No information available

**Lower** No information available

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

##### NFPA

Health	Flammability	Instability	Physical hazards
2	0	3	OX

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes, or clothing.

## **6.2 Environmental precautions**

Avoid release to the environment. See section 12 for additional Ecological information.

## **6.3 Methods and materials for containment and cleaning up**

Sweep up and shovel into suitable containers for disposal. Keep away from clothing and other combustible materials. Avoid dust formation.

## **6.4 Reference to other sections**

See section 2 for full list of hazard and precaution statements.

# **SECTION 7: Handling and storage**

## **7.1 Precautions for safe handling**

### **Precautions on safe handling**

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes or clothing.

### **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

## **7.2 Conditions for safe storage, including any incompatibilities**

### **Storage conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials. Incompatible materials.

### **Incompatibilities**

Strong oxidizing agents. Strong reducing agents. Strong acids. Finely powdered metals. Combustible materials.

# **SECTION 8: Exposure controls/personal protection**

## **8.1 Occupational exposure limits**

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

## **8.2 Exposure controls**

### **Appropriate engineering controls**

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

### **Personal protective equipment**

**Eye/face protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Body Protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Control of environmental exposure**

No information available

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	4.5-6.0 5% aq.sol
Melting Point/Range	169 °C / 336.2 °F
Boiling Point/Range	210 °C
Evaporation Rate	Not applicable
Flammability (solid)	No information available
Flammability or explosive limit	No information available
Upper	
Lower	
Vapor Pressure	No information available
Vapor Density	Not applicable
Density	1.72
Solubility	190 g/100ml (20°C)
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	Not applicable
Molecular Formula	H4 N2 O3
Molecular Weight	80.04

## 9.2 Other safety information

No information available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Yes

### 10.2 Chemical stability

Oxidizer: Contact with combustible/organic material may cause fire. Hygroscopic.

### 10.3 Possibility of hazardous reactions

None under normal processing

### 10.4 Conditions to avoid

Incompatible products. Excess heat. Combustible material. Avoid dust formation. Exposure to moist air or water.

### 10.5 Incompatible materials

Strong oxidizing agents, strong reducing agents, strong acids, finely powdered metals, combustible material.

### 10.6 Hazardous decomposition products

Nitrogen oxides (NO<sub>x</sub>), Ammonia.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

#### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium nitrate	2950 mg/kg (Rat)	5000 mg/kg (Rat)	>88.8 mg/L (Rat) 4h

#### Skin corrosion/irritation

Irritating to eyes

#### Serious eye damage/eye irritation

Irritating for eyes

#### Respiratory or skin sensitization

No information available

#### Germ cell mutagenicity

Not mutagenic in AMES test.

#### Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Ammonium nitrate	6484-52-2	Not listed	Not listed	Not listed	Not listed	Not listed

**Specific target organ toxicity - single exposure**

None known

**Specific target organ toxicity - repeated exposure**

None known

**Reproductive toxicity**

No information available

**Chronic effects**

No information available

**11.2 Additional Information**

No information available

**SECTION 12: Ecological information**

**12.1 Toxicity**

Product		Species	Test Results
Ammonium nitrate	LC50	Freshwater Fish ( <i>C. carpio</i> )	447 mg/L/48h
	EC50	Water Flea ( <i>D. magna</i> )	490 mg/L/48h

**12.2 Persistence and degradability**

Soluble in water. Persistence is unlikely based on information available.

**12.3 Bio accumulative potential**

No information available

**12.4 Mobility in soil**

Will likely be mobile in the environment due to its water solubility.

**12.5 Results of PBT and vPvB assessment**

No information available

**12.6 Endocrine disrupting properties**

No information available

**12.7 Other adverse effects**

No information available

**SECTION 13: Disposal considerations**

**13.1 Waste Disposal Methods**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

### DOT (US)

UN-no.	UN1942
Proper Shipping Name	Ammonium Nitrate
Hazard Class	5.1
Packing Group	III

### IMDG

UN-no.	UN1942
Proper Shipping Name	Ammonium Nitrate
Hazard Class	5.1
Packing Group	III

### IATA

UN-no.	UN1942
Proper Shipping Name	Ammonium Nitrate
Hazard Class	5.1
Packing Group	III

## SECTION 15: Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not applicable

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous**

See section 2 for more information

**SARA 313 (TRI reporting)**

Listed - Threshold values %: 1.0

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**



Not regulated

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**  
Not regulated.

**Safe Drinking Water Act**  
Not regulated

**FEMA Priority Substances Respiratory Health and Safety in the Flavor  
Manufacturing Workplace**  
Not listed

**US state regulations**

**US. Massachusetts RTK - Substance List**  
Listed

**US. New Jersey Worker and Community Right-to-Know Act**  
Listed

**US. Pennsylvania Worker and Community Right-to-Know Law**  
Listed

**California Proposition 65**  
Not listed

**SECTION 16: Other information**

Issue date: 10/05/2010  
Revision 1: 12/02/2014  
Revision 2: 06/28/2024

**SECTION 17: Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.