

AGRSOLUTIONS

Liquid Fertilizer

For Chemical Emergency, Spill, Leak, Fire, Exposure or Accident,  
**CALL CHEMTREC – Day or Night 1-800-424-9300 or 1-800-228-5635**

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**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Name: 28-00-00 Liquid Fertilizer  
 Synonyms: 28% UAN  
 Company ID: Agriliance, LLC  
 PO Box 64089  
 St. Paul, MN 55164-0089  
 Phone #s: Emergency Phone Number - CHEMTREC (day or night): 1-800-424-9300  
 For Medical Emergency - Call 1-877-424-7452  
 Date: 07/01/03 Supersedes: New

**2. COMPOSITION INFORMATION ON INGREDIENTS**

<u>Component</u>	<u>CAS Reg. No.</u>	%
Ammonium nitrate	6484-52-2	39.4
Urea	57-13-6	30.6
Water	7732-18-5	30.0
Typical N-P-K Composition		
Total Nitrogen as N		28%
Total Phosphorus as P <sub>2</sub> O <sub>5</sub>		0%
Total Potassium		0%
Fertilizer salts, inert ingredients		72%
<b>See Section 8 for Personal Protection Limits (PPE).</b>		

**3. HAZARDS IDENTIFICATION**

Emergency Overview:

Appearance & Odor: Colorless solution, with slight fertilizer odor.  
 Warning Statements: This is a liquid fertilizer product and we should avoid extreme temperatures.  
 Not generally harmful if swallowed, ingestion of large amounts may cause systemic ammonia poisoning and nitrate poisoning. May cause aggravation of the eyes. May cause local discomfort if skin with cuts is exposed.

Potential Adverse Health Effects:

Eye Contact: May cause eye aggravation.  
 Skin Contact: Not absorbed through the skin.  
 Ingestion: Not generally considered hazardous. Ingestion of large amounts may cause ammonia and/or nitrate poisoning.  
 Inhalation: Low problem under normal conditions, if difficulty in breathing, remove to fresh air.  
 Effects of overdose: Ingestion of large amounts may cause dizziness, abdominal cramps, vomiting and diarrhea and discomfort to skin and eyes.

**4. FIRST AID MEASURES**

If in Eyes: Flush with cool water for 15 minutes. Remove contact lenses, if applicable and continue flushing for 15 minutes. Hold eyelids apart to rinse the entire surface of the eyes and lids. Seek medical attention if irritation persists.  
 If on Skin: Wash skin with soap and water. Obtain medical attention if irritation persists.

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If Swallowed: Induce vomiting after the victim drinks 1 to 2 glasses of water. Never give anything to a person who is unconscious. Obtain medical attention.

If Inhaled: Remove to fresh air. If not breathing, call 9-1-1 and provide mouth-to-mouth resuscitation. Seek medical help if breathing is difficult.

**5. FIRE FIGHTING MEASURES**

Flash Point: Non-flammable. Flammable Limits: Not established.

Extinguishing Media: Considered non-combustible, use medium appropriate to surrounding fire, water spray or fog, foam, carbon dioxide or dry chemical.

Special Fire Fighting Procedures: None in liquid state. Organic and oxidizable materials can sensitize dry ammonium nitrate to a readily explodable state; can detonate if heated under confinement with high pressure. Provide for the protection of the employees and residents: Notify local authorities that firemen should wear self-contained breathing apparatus with full protecting clothing, be immediately relieved from duty, if exposed to contaminated smoke which may include and are not limited to oxides of nitrogen and carbon; and ammonia when heated to decomposition. See section 11 for toxicological data.

**6. ACCIDENTAL RELEASE MEASURES**In Case of Spill or Leak

Prevent entry into sewer or waterways.

For small spills, absorb in sand or kitty litter or other absorbent, then sweep up and use as a fertilizer by applying to soil using good agricultural and soil management.

For large spill on roadside, avoid contamination of water ways as this liquid fertilizer will increase algae formation, use diking to keep the spill in the ditch. Use loader to remove fertilizer and soil and apply the mixture as a fertilizer using good agricultural and soil management. Replace removed soil and leave as it was before the large spill.

**7. HANDLING AND STORAGE**

Keep temperature above 32°F to keep solution liquid and be able to transfer. Be sure to use proper confined space entry procedures when entering storage tanks or pits. Do not allow the solution to dry. Protect from excessive heat. Store in a cool, dry place away from children, food, feed and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Personal Protective Equipment:]

Eye Protection: Safety glasses or chemical splash-proof goggles.

Skin Contact: To avoid skin contact, wear normal working clothing such as coveralls or long-sleeved shirt, long pants and boots.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washing, use detergent and hot water. Keep and wash PPE separately from other laundry.

Respiratory Protection: None required under normal operating conditions.

Ventilation Protection: Provide adequate ventilation.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Colorless liquid. Odor: Slight odor.  
Solubility: Complete in water

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Specific gravity: 1.28 @ 60°F

pH: 6.5. –7.5

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

**10. STABILITY AND REACTIVITY**

Chemical Stability: Stable  
 Conditions to Avoid: Excessive heat and fire conditions.  
 Materials to avoid: Organic and easily oxidizable matter.  
 Hazardous Decomposition Products: Oxides of nitrogen, carbon, and ammonia will be formed when heated to decomposition.

**11. TOXICOLOGICAL INFORMATION**

**Routes of entry:** Eye, skin contact, inhalation and ingestion.

Eye Irritation: Low  
 Skin Irritation: Slight potential

Acute Oral LD<sub>50</sub> (rat): >2000 mg/kg  
 Acute Dermal LD<sub>50</sub>(rat): >5000 mg/kg  
 Carcinogenicity: Not by NTP or IARC.  
 Low acute toxicity to fish

**12. ECOLOGICAL INFORMATION**

Acute aquatic toxicity: Fish 96-hour is greater than 103 mg/L not toxic to aquatic organisms.  
 Liquid fertilizer discharges. Avoid discharges into waterways as fertilizer can cause nitrification and algae blooms.

**13. DISPOSAL CONSIDERATIONS**

Steps to be taken if material is released or spilled

Wear proper PPE found in section 8. Contain, absorb and maximize recovery.

Precautions to be taken in handling and storing

Protect from excessive heat. Store in a cool dry place away from water, food and feed.

**14. TRANSPORTATION INFORMATION**

Follow the precautions indicated in the Handling and Storage Section, Section 7 of this MSDS.  
 DOT Classification: Not regulated by US DOT  
 Reportable Quantity: None

**15. REGULATORY INFORMATION**

SARA Hazard Notification/Reporting

Immediate Y Fire N Sudden Release of Pressure N  
 Delayed N Reactive N

SARA Title 313, Toxic chemicals: Ammonium nitrate solution  
 Section 302-304 (30 CFR 350): None

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Extremely hazardous substance (EHS): None  
SARA/OSHA Hazardous chemical reporting quantity: None.  
RCRA Hazardous waste: None

**16. OTHER**

Reasons for revision: New ANSI Format.

National Fire Protection Association (NFPA)  
Hazardous Materials Identification System (HMIS)

NFPA		HMIS	
	0 Least		
1 Health	1 Slight	1	Health
0 Flammability	2 Moderate	0	Flammability
- 0 Instability	3 High	0	Reactivity
	4 Severe	D	PPE

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