

EL DORADO CHEMICAL COMPANY

MATERIAL SAFETY DATA SHEET LIQUID AMMONIUM NITRATE 90%

MSDS NO.: ELDOR-14

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION.

EL DORADO CHEMICAL COMPANY

4500 North West Ave.

P. O. Box 231

El Dorado, AR 71731

83% Ammonium Nitrate Solution

Information Telephone:

(870) 863-1498

Emergency Telephone:

(870) 863-1400

Hours of Operation:

24 hours

Fax:

(870) 863-1499

Chemtrec:

(800) 424-9300

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS.

COMPOSITION:

Ammonium Nitrate

Formula: NH_4NO_3

HAZARDOUS INGREDIENTS:

Ammonium Nitrate

CAS# 6484-52-2

90% by weight

SECTION 3: HAZARDS IDENTIFICATION.

EMERGENCY OVERVIEW:

DANGER: Strong Oxidizer

Contact with other combustible materials may cause fire.

Explosive if mixed with organic matter or finely divided metals.

Unstable under high temperature.

POTENTIAL HEALTH HAZARDS:

EYE:

May cause redness, pain and blurred vision.

SKIN:

May cause irritation and pain resulting in reddening of the skin and possible thermal and chemical burns.

INGESTION:

May cause stomach ache, nausea, vomiting, diarrhea and increased urination. Large quantities may produce methemoglobinemia.

INHALATION:

Exposure to spray or mist may be irritating to nose, throat, and upper respiratory tract. May cause coughing, dizziness and convulsions.

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SECTION 4: FIRST AID MEASURES.

EYE:

Immediately flush with water for at least 15 minutes. Contact a physician immediately.

SKIN:

Flush skin with large amounts of water. Remove contaminated clothing.

INGESTION:

Give large amount of water. Induce vomiting with caution. Never give anything by mouth to an unconscious or convulsing person. Contact a physician.

INHALATION:

Remove to fresh air. Contact a physician. Observe for delayed effects.

SECTION 5: FIRE FIGHTING MEASURES.

FLAMMABLE PROPERTIES:

Ammonium nitrate is a strong oxidizing agent and will support combustion in the absence of oxygen. Spontaneous ignition at moderately elevated temperatures can occur when ammonium nitrate is mixed with oxidizable materials such as wood, charcoal, sulfur, finely divided metals and organics. If confined and ignition occurs, an explosion may occur.

EXTINGUISHING MEDIA:

Flood with water. Do not use CO₂, dry chemicals, or foam. Ammonium nitrate releases oxides when heated and smothering will not extinguish ammonium nitrate fires.

FIRE AND EXPLOSION HAZARDS:

Can ignite explosively when in contact with other oxidizable materials.

HAZARDOUS DECOMPOSITION PRODUCTS:

Combustion will release ammonia and oxides of nitrogen.

FIRE FIGHTING EQUIPMENT:

Fire fighters should wear proper protective equipment and self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

Contain spill. For small spills, absorb solution on sand, clay, earth and place in suitable containers for removal. For larger spills, dike far ahead of spill for later disposal.

Although reportable quantities have not been fixed, spills into drinking water supplies and sewers should be reported to proper authorities.

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SECTION 7: HANDLING AND STORAGE.

HANDLING:

- Temperature should be kept above 135°F to keep solution fluid and pumpable.
- Do not mix with other organic material.
- Keep away from heat, sparks and flame.
- No smoking near this material.
- Do not get in eyes, on skin or clothing.
- Do not ingest.
- Absorb spilled material promptly on sand, clay, earth and place in suitable containers for handling.
- Wash thoroughly after handling.
- Remove and wash contaminated clothing promptly.

STORAGE:

- Avoid contamination.
- Store in cool ventilated area away from fire hazards.
- Keep separate from other chemicals and combustible materials.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION.

RESPIRATORY PROTECTION:

None required where adequate ventilation conditions exist. If airborne concentration is high, use an appropriate respirator or self contained breathing apparatus. Refer to the OSHA Respirator Standard 29 CFR 1910.134 for proper selection and use of personal respirators.

SKIN PROTECTION:

Neoprene, nitrile and PVC protective clothing is suggested to prevent prolonged or repeated skin contact. Refer to OSHA General Requirements for Personal Protective Equipment 29 CFR 1910.132.

EYE PROTECTION:

Wear chemical safety goggles and provide eye wash stations when direct eye contact is likely. Refer to OSHA Requirements for Eye and Face Protection 29 CFR 1910.133.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

Appearance:Clear to amber liquid salting out in the range of
135°F - 170°F
Odor:Trace of ammonia odor
pH:5.5
Flashpoint:Not Applicable
% Solids:0%
% Volatiles:0%
Solubility:Complete in water
Melting Point:Salt out 158°F
Decomposition Temperature:284°F
Vapor Density:Not applicable
Vapor Pressure:Not applicable

SECTION 10: STABILITY AND REACTIVITY.

STABILITY:

Contamination with oxidizable materials may lead to fire or explosion.

INCOMPATIBILITY:

Organic materials, metal powders, flammable liquids, sulfur, oil, wood, charcoal, chlorides, explosives and any ignition source.

HAZARDOUS DECOMPOSITION PRODUCTS:

Ammonia, oxides of nitrogen.

HAZARDOUS POLYMERIZATION:

Does not occur.

SECTION 11: TOXICOLOGICAL INFORMATION.

ACUTE:

Oral LD-50 (rat):5300 mg/kg
practically non-toxic
Dermal LD-50 (rabbit):7940 mg/kg
practically non-toxic
Eye Irritation (rabbit):FHSA Score=9.4 (scale of 110)
slightly irritating.
Dermal Irritation (rabbit):FHSA Score=2.8 (scale of 8.0)
slightly irritating.

Can cause eye and skin irritation and possible chemical burns. Inhalation of dust may cause severe lung congestion and delayed reactions resulting in pulmonary edema and chemical pneumonitis. Ingestion of large doses may cause systemic acidosis and methemoglobinemia.

CHRONIC:

Prolonged and repeated exposure may cause skin dermatitis, kidney damage and conjunctivitis. Exposure may aggravate pre-existing dermatitis and kidney and lung conditions. Ammonium nitrate is not classified as a carcinogen by IARC, NTP or OSHA.

TARGET ORGANS:

Eyes, skin, mucous membranes.

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SECTION 12: ECOLOGICAL INFORMATION.

Ammonium nitrate is a plant nutrient. However, it can kill vegetation and fish and cause eutrophication if waterways are contaminated.

SECTION 13: DISPOSAL CONSIDERATIONS.

Do not allow contact with combustible materials. Water solutions of ammonium nitrate can be distributed on land as fertilizer. If contaminated, consult with federal, state or local authorities for additional or alternative requirements.

SECTION 14: TRANSPORTATION INFORMATION.

Shipping Name:Ammonium Nitrate, Liquid (hot, concentrated solution)
UN/DOT ID #:UN 2426
DOT/IMO Hazard Class:5.1
Packaging Group:None
DOT Label/Placard:Oxidizer
Quantity Limits:
 Passenger Aircraft or Railcar:Forbidden
 Cargo Aircraft Only:Forbidden
 Vessel Stowage:D
Packaging Authorizations:
 Exceptions:None
 Non-bulk Packaging:None
 Bulk Packaging:49 CFR 173.243*
DOT Emergency Response
Guide Number:140

SECTION 15: REGULATORY INFORMATION.

CERCLA SUPERFUND, 40 CFR 117.302:

There are no reportable quantities for accidental releases of this product under the Comprehensive Environmental Response, Compensation and Liability Act.

SARA HAZARD CATEGORY:

Under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) this product is considered to meet the following categories:

Fire Hazard:Yes
Sudden-Release of Pressure:No
Reactivity Hazard:No
Acute Health Hazard:Yes
Chronic Health Hazard:Yes

SARA 313 INFORMATION:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 (40 CFR Part 372): nitrate compounds (water dissociable; reportable only when in aqueous solution)

*See Special Provisions Code B5 on Solutions of 35% or Less Water For Vehicle & Temperature Restrictions.

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SECTION 16: OTHER INFORMATION.

HAZARD RATINGS:

| | HMIS | NFPA | |
|-----------------|----------|----------|-------------|
| Health | 1 | 1 | 0: minimal |
| Flammability | 0 | 0 | 1: slight |
| Reactivity | 3 | 3 | 2: moderate |
| | | | 3: serious |
| | | | 4: severe |
| Special Hazard: | Oxidizer | Oxidizer | |

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, El Dorado Chemical Company makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determinations as to its suitability for their purposes prior to use. In no event will El Dorado Chemical Company be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers.

REVISED July 2013