

# SAFETY DATA SHEET

## AMMONIUM NITRATE SOLUTION – 21%

### Section 1 – Identification

Product	21% N Ammonium Nitrate Solution (60% A.N. Solution)	Recommended Use: Used as a nitrogen fertilizer and in other manufacturing processes.
Manufacturer	TradeMark Nitrogen Corp.	
Address	1216 Old Hopewell Road, Tampa, FL 33619	
Phone	(813) 626-1181 (800) 452-3107	
24 Hour Emergency Contact	Chemtrec (800) 424-9300	

### Section 2 – Hazard Identification

Hazard	Product is not hazardous under normal conditions.
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### Section 3 – Composition

Ingredients	Component	CAS. No.	Percent by Weight
	Ammonium Nitrate (NH <sub>4</sub> NO <sub>3</sub> )	6484-52-2	60%
	Water (H <sub>2</sub> O)	7732-18-5	40%

### Section 4 – First Aid Measures

Inhalation	If inhaled: Remove person to fresh air and keep comfortable for breathing. Provide artificial respiration if necessary. Seek medical attention if necessary.
Skin Contact	If on skin (or hair): Take off all contaminated clothing. Rinse skin with soap and water for at least 15 minutes.
Eye Contact	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if irritation persists.
Ingestion	If swallowed: <b>Do NOT induce vomiting.</b> Drink large amounts of water. Never give anything by mouth to an unconscious person. Seek medical attention.
Acute Health Hazards	High levels of nitrates may reduce the blood's ability to transport oxygen causing headache, fatigue, dizziness and blue lips and skin (methemoglobinemia).
Chronic Health Hazards	Methemoglobinemia is the primary health effect, but possible excessive action of the kidneys and perhaps bowels can occur.

### Section 5 – Fire Fighting Measures

Suitable Extinguishing Techniques & Equipment	21% N ammonium nitrate is non-flammable aqueous solution. Flooding quantity of water is recommended in the event of a fire. Do not use salt water, carbon dioxide, dry chemicals or foam extinguishers.
Chemical hazards From Fire	If product evaporates, residual solid can be explosive. In a fire, carbon oxides, nitrogen oxides and ammonia may be present.
Special Fire Fighting Procedures	Keep material wet to prevent nitrate salts from forming as they can support combustion or become unstable. Avoid contamination of ammonium nitrate with organic materials such as oil, sulfur, metal fines or other combustible substances as the mixture may become unstable. For large fires, apply water to the sides of the container from a distance. If that is not possible, evacuate area. If the liquid evaporates, the remaining solid may become explosive.
NFPA Rating	Health - 1 (Slight), Fire - 0 (Least), Reactivity - 0 (Least)



### Section 6 – Accidental Release Measure

Personal Precautions	Avoid splashing. Prevent exposure to spilled material with the use of proper PPE.
Protective Equipment	PPE should include gloves, goggles, face shield and level C protective suit.
Containment	Control the flow of product using dikes of soil, sand bags or other commercially available inert sorbent socks or booms.
In Case of Spill	Absorb product with inert absorbent. Avoid splashing or spraying. Contain and pick up spill in diked area. Prevent discharge to sewers or water ways. If uncontaminated, recover and re-use.



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## Section 7 – Safe Handling and Storage

Precautions for Safe Handling and Storage	Store in a well ventilated cool dry place. Avoid heating Ammonium Nitrate Solution in a confined space (i.e. pipe, pump, etc.) as the solution may decompose and explode. Before performing any hot work, clean and flush the line.
Incompatibility	Avoid contact with readily oxidizable materials, strong acids and chlorates. Contact with alkaline materials will produce ammonia. Will corrode copper, bronze and brass.

## Section 8 – Exposure Controls / Personal Protection

Exposure Limits	Component	Permissible Exposure Limit	Threshold Limit Value	Short Term Exposure Limit	Immediately Dangerous to Life or Health
	Ammonium Nitrate (NH <sub>4</sub> NO <sub>3</sub> )	Not Established	Not Established	Not Established	Not Established
	Water (H <sub>2</sub> O)	Not Established	Not Established	Not Established	Not Established

**Engineering Controls** Local or general exhaust. Eyewash facilities should be available.

**Personal Protective Equipment**  
 Eyes - Chemical safety goggles or safety glasses.  
 Hands - Impervious gloves.  
 Respiratory - None required under normal conditions. NIOSH approved respirator if there is a mist of the product.



Gloves



Goggles

or



Safety Glasses

Appearance and Odor	Clear liquid with little to no detectable odor.		
Boiling Point	> 212°F at 1 atmosphere	Specific Gravity	1.287 at 60°F (15.5°C)
Freezing Point	N/A	Molecular Weight	N/A
Vapor Pressure	0.06 psia at 60°F	Solubility in Water	Miscible in Water
Gallons per Ton	186.39	Evaporative Rate	N/A
Weight per Gallon	10.73 lbs/gal @ 60°F	pH: (10% Soln/Water)	6.0 - 7.0
	1.29 kg/L @ 15.5°C	Salt-Out Temp	51°F (10.5°C)
Flash Point	Not Flammable	Auto Ignition Temp	Not Flammable
		Flammability Limits	N/A
		LEL	N/A
		UEL	N/A

## Section 10 – Stability and Reactivity

Reactivity	Product is not reactive under normal conditions.
Stability	Product is stable under normal conditions.
Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Do not allow product to evaporate to dryness. Elevated temperatures may cause container to rupture.
Incompatible Materials	Avoid contact with readily oxidizable materials, strong acids and chlorates. Contact with alkaline materials will produce ammonia. Will corrode copper, bronze and brass.
Hazardous Decomposition Products	If product evaporates, residual solid (ammonium nitrate) can be explosive. In a fire, carbon oxides, nitrogen oxides and ammonia may be present.

## Section 11 – Toxicology Information

Routes of Exposure	Inhalation, ingestion or skin/eye absorption
Symptoms and Signs of Exposure	<b>Eyes &amp; Skin</b> mild irritant. <b>Inhalation</b> of mist may irritate respiratory tract causing cough and sore throat. <b>Ingestion</b> can cause abdominal pain, vomiting, diarrhea and methemoglobinemia.
Long Term Effects	Methemoglobinemia is the primary health effect.
Toxicity	Ammonium Nitrate Rat Oral Toxicity LD <sub>50</sub> 2217-4500 mg/kg (OECD Guide 401)
Carcinogen	The International Agency for Research on Cancer has not classified ammonium nitrate for its carcinogenic potential (IARC 1987).



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## Section 12 – Ecological Information

Water Low concentrations are not toxic to fish or other aquatic organisms. High concentrations may be toxic to aquatic life and encourage excessive algae growth.

## Section 13 – Disposal Considerations

Waste Ammonium Nitrate is not considered a hazardous waste. Disposal must be done in accordance with local, state and federal environmental regulations. Place waste in an appropriate container with correct labeling.

## Section 14 – Transport Information

Shipping Ammonium Nitrate is not hazardous as defined by 49 CFR 172.101 by the US Department of Transportation

## Section 15 – Regulatory Information

United States - SARA Hazard Category This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act (SARA) and is considered, under applicable definitions, to meet the following categories:

Fire - No                      Pressure - No                      Reactive - No                      Acute - Yes                      Chronic - No

SARA Title III Information This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Chemical	CAS No.	CERCLA RQ (pounds)	SARA Reporting		
			302	304	313
Ammonium Nitrate	6484-52-2	N/A	N/A	N/A	Yes <sup>(1)</sup>

<sup>(1)</sup> As nitrate compounds (water dissociable)

CERCLA / Superfund, 40 CFR Part 117, 302 If this product contains components subject to substances designated as CERCLA reportable Quantity (RQ) Substances, it will be designated in the above table with the RQ value in pounds. If there is a release of RQ Substance to the environment, notification to the National Response Center, Washington DC (800-424-8802) is required.

TSCA Ammonium nitrate salt (Nitric Acid Ammonium Salt (1:1)) is listed on the TSCA inventory.

## Section 16 – Other Information

Date of Revision August 2014 TSCA statement revised. February 2013 revision prepared in accordance with 29 CFR 1910.1200 Appendix D to meet Global Harmonization Standards.

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