TRADEMARK NITROGEN

SAFETY DATA SHEET

AN-21

Section 1 – Identification

Product	AN-21 Ammonium Nitrate Solution	Recommended Use:
	21-0-0	Commercial Fertilizer
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

GHS07

Signal Word: **WARNING**

Hazard Statements

H315 Causes skin irritation
H320 Causes eye irritation
H371 May cause damage to organs (blood)
H402 Harmful to aquatic life

Precautionary Statements:

P210 Keep away from open flames. - No Smoking
P220 Keep / Store away from combustible materials
P221 Take any precaution to avoid mixing with combustible materials
P260 Do not breathe fume, mist, spray, vapours
P264 Wash hands thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P273 Avoid release to the environment
P280 Wear eye protection, protective clothing, protective gloves
P302+P352 IF ON SKIN: Wash with plenty of water
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332+P313 If skin irritation occurs: Get medical advice / attention
P337+P313 If eye irritation persists: Get medical advice / attention
P362 Take off contaminated clothing
P370+P378 IN CASE OF FIRE: use water in large amounts, water spray for extinction
P405 Store locked up
P501 Dispose of contents / container according to local, regional, national, and international regulations

Section 3 – Composition

Ingredients	Component	CAS. No.	Percent by Weight
	Ammonium Nitrate (NH_4NO_3)	6484-52-2	60%
	Water (H_20)	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. Liquid is hot - may need to treat exposed person for burns.
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: Do NOT induce vomiting. 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 bloods 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	60% 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)
Other	Do not allow run-off from fire fighting to enter drains or water courses.

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.

Section 7 – Safe Handling & Storage

Precautions for Safe Handling & Storage	**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. Avoid welding on pipes or tanks that have contained Ammonium Nitrate Solution until they have been thoroughly washed out with water. Do not store product in unlabeled containers or tanks. Use appropriate containment to avoid environmental contamination. While 60% ammonium nitrate solution as produced is not classified as an oxidizer, it is important to prevent conditions during handling and storage which may result in the concentration of the product which may encourage it to behave as an oxidizer. Ensure that 60% ammonium nitrate solution pumps are thermally protected against exceeding a temperature of 150°F (66°C). Also ensure that piping systems, if insulated, are not externally heated (heat traced). Store in accordance with local regulations and separate from reducing agents and combustible materials. **Hygiene:** Eating, smoking, and drinking should be prohibited in areas where this product is handled, stored and processed. Wear appropriate personal protective equipment when handling oxidizers such as ammonium nitrate.
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_4NO_3)	Not Established	Not Established	Not Established	Not Established
	Water (H_2O)	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 chemical protective gloves.			
	Respiratory	None required under normal conditions. NIOSH approved respirator if there is a mist of the product.			
	Protective Clothing				


Gloves


Goggles


Protective Clothing


Respiratory Protection

Section 9 – Physical & Chemical Properties

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

Section 10 – Stability & 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. Keep away from heat. Avoid heating within a confined space. Avoid incompatibilities, contamination and combustible materials
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	Eyes	Causes eye irritation.	
	Skin	Mild irritant.	
	Inhalation	May irritate respiratory tract causing cough and sore throat.	
	Ingestion	Can cause abdominal pain, vomiting, diarrhea and methemoglobinemia.	
Long Term Effects	Methemoglobinemia is the primary long-term health effect.		
Toxicity	Ammonium Nitrate		
	Rat Oral Toxicity (OECD Guide 401)	LD_{50}	2217-4500 mg/kg
Carcinogen	The International Agency for Research on Cancer has not classified ammonium nitrate for its carcinogenic potential (IARC 1987).		

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.
Additional Information	This material is highly water soluble. Landfills receiving this material should be equipped to contain leachate.

Section 14 – Transport Information

This material is non hazardous as defined by 49 CFR 172.101 by the US Department of Transportation

UN ID Number	Not Applicable
Proper Shipping	Not Applicable
Hazard Class	Not Applicable
Packing Group	Not Applicable
US DOT Label	Not Applicable

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 (lbs.)	SARA Reporting		
			302	304	313
Ammonium Nitrate	6484-52-2	N/A	N/A	N/A	Yes[(1)]

[(1)] 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 Active TSCA inventory.

Section 16 – Other Information

Issue Date:	5/31/2022
Date of Revision	May 2022 NFPA Diamond updated. September 2020 section 7 guidance updated. June 2019 TSCA Statement revised to include the word 'Active'. November 2018 NFPA Diamond updated. June 2018 SDS format updated. October 2017 SDS update to meet GHS Standards. August 2014 TSCA statement revised. February 2013 revision prepared in accordance with 29 CFR 1910.1200 Appendix D to meet Global Harmonization Standards.
Disclaimer	The information contained in this SDS refers only to the specific material designated and does not relate to any process or use with any other materials. This information is furnished free of charge and is based on data believed to be accurate and reliable as of the date hereof. It is intended for use by persons possessing technical knowledge at their own discretion and risk. Since actual use is beyond our control, no warranty, expressed or implied, and no liability is assumed by TradeMark Nitrogen Corp. in conjunction with the use of this information. Nothing herein is to be construed as a recommendation to infringe any patents. TradeMark Nitrogen Corp. assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.