TRADEMARK NITROGEN

SAFETY DATA SHEET

19.5% AQUA AMMONIA

Section 1 – Identification

Product	19.5% Aqua Ammonia
Manufacturer	TradeMark Nitrogen Corp.
Address	1216 Old Hopewell Road, Tampa, FL 33619
Phone	(813) 626-1181
24 Hour Emergency Contact	Chemtrec (800) 424-9300

Recommended Use:

As a component in the manufacturing of various industrial & agricultural products.

Section 2 – Hazard Identification

GHS05

GHS07

GHS09

Signal Word: **DANGER**

Classification:

Acute Tox. 4 (Oral)	**H302**
Acute Tox. 4 (Inhalation: gas)	**H332**
Skin Corr. 1A	**H314**
Eye Dam. 1	**H318**
STOT SE 3	**H335**
Aquatic Acute 1	**H400**
Aquatic Chronic 3	**H412**

Hazard Statements

H302+H332 Harmful if swallowed or inhaled
H314 Causes severe skin burns and eye damage
H318 Causes severe eye damage
H335 May cause respiratory irritation
H400 Very toxic to aquatic life
H412 Harmful to aquatic life with long lasting effects

Precautionary Statements:

P260 Do not breathe fume, mist, spray, vapours
P261 Avoid breathing vapors, mist or spray
P264 Wash hands, forearms and exposed areas thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment
P280 Wear eye protection, protective clothing, protective gloves, face protection
P302+P352 IF ON SKIN: Wash with plenty of water
P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor.
P303+P361+P353+P310 IF ON SKIN (OR HAIR): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor.
P304+P340+P310 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor.
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.
P391 Collect spillage
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local, regional, provincial, territorial, national, and international regulations.

Section 3 – Composition

Ingredients	**Mixture:**	CAS. No.	Percent by Weight
	Ammonium Hydroxide	1336-21-6	100.0%
	Contains:		
	Ammonia	7664-41-7	80.5 - 81.5%
	Water (H20)	7732-18-5	18.5 - 19.5%

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 immediately. Show label if possible.
Skin Contact	If on skin (or hair): Immediately flush skin with plenty of water for at least 60 minutes. Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.
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 60 minutes. Immediately call a POISON CENTER or doctor/physician.
Ingestion	If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
Chronic Health Hazards	None known.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Techniques & Equipment	Aqua Ammonia is non-flammable aqueous solution. Flooding quantity of water is recommended in the event of a fire. Water spray, fog. Do not use a heavy water stream. Use of heavy stream of water may spread fire.
Chemical Hazards From Fire	Ammonia vapor concentrations in the range of 16-25% by volume in air can be ignited if heated to the auto-ignition temperature. Oil or other combustible materials increases the fire hazard. Emits toxic fumes under fire conditions. **Explosion Hazard:** Forms explosive compounds with calcium hypochlorite, bleaches, gold, mercury, silver, chlorine and other halogens. Contact with strong oxidizers can result in fires and explosions. **Reactivity:** Corrosive to copper, brass, silver, zinc and galvanized steel.
Special Fire Fighting Procedures	**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire. **Firefighting Instructions:** Stop leak if safe to do so. Use water spray or fog for cooling exposed containers. In case of major fire and **large quantities:** Evacuate area. Fight fire remotely due to the risk of explosion. **Protection During Firefighting:** Firefighters must use full bunker gear including NIOSH-approved positive-pressure self-contained breathing apparatus to protect against potential hazardous combustion and decomposition products. **Hazardous Combustion Products:** Nitrogen oxides. Ammonia.
NFPA Rating	Health - 1 (Slight) Fire - 0 (Least) Reactivity - 3 (High)
Other	Do not allow run-off from fire fighting to enter drains or water courses.

Section 6 – Accidental Release Measure

Personal Precautions	General Measures: Keep away from open flames, hot surfaces and sources of ignition. No smoking. Avoid all contact with skin, eyes, or clothing. Do NOT breathe vapor, mist, spray.
Protective Equipment	PPE should include gloves, goggles, face shield and up to level A protective chemical suit in the event of a release.
Containment	Stop the flow of material, if this is without risk. Ventilate area. Contain any spills with dikes or absorbents.
In Case of Spill	Clear up spills immediately and dispose of waste safely. Never neutralize spill with acid. Absorb and/or contain spill with inert material, then place in suitable container. Use only non-sparking tools. After cleaning, flush traces away with water.

Section 7 – Safe Handling & Storage

Precautions for Safe Handling & Storage

Additional Hazards When Processed: Additional Hazards When Processed: Do NOT enter (storage areas, confined spaces) unless adequately ventilated. Emits ammonia vapors. Flammable gas. Ammonium hydroxide reacts with many heavy metals and their salts forming explosive compounds. It may attack metals forming flammable/explosive gas. The solution in water is a strong base, it reacts violently with acids.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

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.

Conditions for Safe Storage, Including Any Incompatibilities:
Technical Measures: Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained. Ensure adequate ventilation. Comply with applicable regulations.
Storage Conditions: Store in a dry, cool and well-ventilated place. Detached outside storage is preferable. Keep in fireproof place. Store away from oxidizers, combustible materials, and all ignition sources. Store in corrosive resistant container with a resistant inner liner. Storage containers should have safety relief valves. Store locked up.
Storage Area: Post readily visible warning signs in the storage area listing emergency measures. Water hoses should be readily available to disperse vapors in case of a spill.

Incompatibility

Incompatible Materials: Forms explosive compounds with calcium hypochlorite, bleaches, gold, mercury, silver, chlorine and other halogens. Contact with strong oxidizers can result in fires and explosions. Corrosive to copper, brass, silver, zinc and galvanized steel.

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
Ammonia	50ppm (OSHA)	25ppm (ACGIH)	35ppm (ACGIH)	300ppm (NIOSH)
Water (H_2O)	Not Established	Not Established	Not Established	Not Established

Engineering Controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Gas detectors should be used when toxic gases may be released. Use explosion-proof equipment.

Personal Protective Equipment

Eyes	Chemical safety goggles or safety glasses.
Hands	Impervious chemical protective gloves.
Respiratory	If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.
Protective Clothing	Chemically resistant materials and fabrics.

Other Information

When using, do not eat, drink, or smoke.


Gloves


Goggles


Protective Clothing


Respiratory Protection

Section 9 – Physical & Chemical Properties

Appearance and Odor	Clear or colorless liquid with strong pungent odor	Sp Gravity	0.9258 - 0.9290 at 60°F (19.5% NH_3)
Boiling Point	> 120°F (49°C) at 1 atmosphere	Molecular Weight	35.05 g/mol
Freezing Point	-34°C (-30°F) (25% NH_3)	Solubility in Water	Soluble in Water
Vapor Pressure	49642.2 Pa at 68°F (20°C)	Viscosity	1.1 - 1.2 mPas @ 60°F (15.5°C)
Weight per Gallon	7.73 lbs/gal (0.90 kg/l) @ 60°F (15.5°C) 259 gal / ton	pH	12.5 - 13.5
Flash Point	No Data Available	Salt-Out Temp	-30°F (-34°C)
Flammability Limits	No Data Available	Auto Ignition Temp	Not Flammable
UEL	No Data Available	LEL	No Data Available

Section 10 – Stability & Reactivity

Reactivity	Forms explosive compounds with calcium hypochlorite, bleaches, gold, mercury, silver, chlorine and other halogens. Contact with strong oxidizers can result in fires and explosions. Corrosive to copper, brass, silver, zinc and galvanized steel.
Stability	Product is stable under normal conditions.
Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Direct sunlight. Extremely high or low temperatures. Heat. Sources of ignition.
Incompatible Materials	Strong acids. Strong bases. Strong oxidizers. Hypochlorites.
Hazardous Decomposition Products	Thermal decomposition generates: Carbon oxides (CO, CO2). Nitrogen oxides. Emits ammonia vapors.

Section 11 – Toxicology Information

Routes of Exposure	Inhalation, ingestion or skin/eye absorption	
Symptoms and Signs of Exposure	Eyes	Causes serious eye damage. Symptoms may include: Redness. Pain. Blurred vision. Severe burns. Causes permanent damage to the cornea, iris, or conjunctiva.
	Skin	Corrosive. Causes burns. Symptoms may include: Redness. Pain. Serious skin burns. Blisters.
	Inhalation	Symptoms may include: Sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing. Damage to lungs. Harmful if inhaled.
	Ingestion	Harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Long Term Effects	None Known	
Toxicity	Ammonia (7664-41-7)	
	LC50 Inhalation Rat	5.1 mg/l (Exposure time: 1 h)
	LC50 Inhalation Rat	2000 ppm/4h (Exposure time: 4 h)
	Water (7732-18-5)	
	LD50 Oral Rat	> 90000 mg/kg
	Ammonium hydroxide (1336-21-6)	
	LD50 Oral Rat	350 mg/kg
Carcinogen	The International Agency for Research on Cancer has not classified Aqua Ammonia for its carcinogenic potential (IARC 1987).	

Section 12 – Ecological Information

Toxicity: Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Ammonia (7664-41-7)

LC50 Fish 1	0.44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio)
EC50 Daphnia 1	25.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	0.26 - 4.6 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)

Ammonium hydroxide (1336-21-6)

LC50 Fish 1	8.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 Daphnia 1	0.66 mg/l (Exposure time: 48 h - Species: water flea)
EC50 Daphnia 2	0.66 mg/l (Exposure time: 48 h - Species: Daphnia pulex)

Persistence and Degradability

Ammonium hydroxide (1336-21-6): Biodegradation of ammonia occurs in water under aerobic conditions.

Bioaccumulative Potential

Ammonium hydroxide (1336-21-6)

Log Pow: -1.14

	Bioaccumulative Potential	Not established.
	Ammonia (7664-41-7)	
	Log Pow	-1.14 (at 25 °C)
	Mobility in Soil	Not available.
	Other adverse effects	Avoid release to the environment.

Section 13 – Disposal Considerations

Waste	Sewage Disposal Recommendations: Do not empty into drains; dispose of this material and its container in a safe way. Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.
Additional Information	Prevent runoff from entering drains, sewers or waterways.

Section 14 – Transport Information

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

DOT

Proper Shipping Name	AMMONIA SOLUTION (with more than 10% but not more than 35% ammonia)
Hazard Class	8
Identification Number	UN2672
Label Codes	8
Packing Group	III
ERG Number	154
CERCLA RQ	Ammonium Hydroxide = 1,000 lbs
Additional Information	Marine Pollutant

This material is hazardous as defined by 49 CFR 172.101 by the International Maritime Dangerous Goods Code

IMDG

Proper Shipping Name	AMMONIA SOLUTION (with more than 10% but not more than 35% ammonia)
Hazard Class	8
Identification Number	UN2672
Packing Group	III
Label Codes	8 + MP(P)
EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-B
Additional Information	Marine Pollutant, Classified as HME per MARPOL Annex V

This material is hazardous as defined by 49 CFR 172.101 by the International Air Transport Association

IATA

Proper Shipping Name	AMMONIA SOLUTION (with more than 10% but not more than 35% ammonia)
Hazard Class	8
Identification Number	UN2672
Label Codes	8
Packing Group	III
ERG Code (IATA)	8L

Section 15 – Regulatory Information

US Federal Regulations

Ammonium hydroxide (1336-21-6)

SARA Section 311/312 Hazard Classes: Immediate (acute) health hazard

Ammonia (7664-41-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on the United States SARA Section 302
Listed on United States SARA Section 313

SARA Section 302 Threshold Planning Quantity (TPQ):	500
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Sudden release of pressure hazard
SARA Section 313 - Emission Reporting	1.0 % (includes anhydrous Ammonia and aqueous Ammonia from water dissociable Ammonium salts and other sources, 10% of total aqueous Ammonia is reportable under this listing)

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ammonium hydroxide (1336-21-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Section 16 – Other Information

Issue date	**8/20/2025**
Date of Revision	August 2025 SDS 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.