

Aqua Ammonia 19%

SDS: P-14 Version: 1

Safety Data Sheet

Revision Date: 09/28/2016



SECTION 1: IDENTIFICATION

Product Identifier: Aqua Ammonia
Product Names and Synonyms: Ammonia water, Aqueous ammonia, Ammonium hydrate, Ammonium hydroxide
Intended Use: Industrial applications
Intended Users: For use only under strictly controlled conditions and only by qualified personnel who are fully trained in the handling and use of this product.

Name, Address, and Telephone of the Responsible Party:

Austin Powder Company
25800 Science Park Dr.
Cleveland, OH 44122
216-464-2400 during normal business hours
877-836-8286 Toll Free 24/7
www.austinpowder.com

In Case of Emergency Call CHEMTREC – TOLL FREE 24/7
800-424-9300 DOMESTIC
1-703-527-3887 INTERNATIONAL AND MARINE

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture:

Code	Hazard Class	Hazard Category
H302	Acute toxicity, oral	4
H332	Acute toxicity, inhalation	4
H314	Skin corrosion / irritation	1A
H318	Serious eye damage / eye irritation	1

Label Elements

Danger



Hazard Statements

Harmful if swallowed
Harmful if inhaled
Causes severe skin burns and eye damage
Causes serious eye damage

Precautionary Statements

Wash skin thoroughly after handling.
Avoid release to the environment.
Wear protective gloves/ protective clothing/ eye protection/ face protection.



IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air. Keep at rest in a position comfortable for breathing.

Immediately call a POISON CENTER/doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

If exposed or concerned, or you do not feel well: Get medical attention.

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container to an approved waste disposal plant.

Other Hazards:

Lachrymator.

Unknown Acute Toxicity: Not available

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Name	Product Identifier	% (w/w)
Ammonium hydroxide	CAS No. 1336-21-6	10-19.5

SECTION 4: FIRST AID MEASURES

General: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

Ingestion: Rinse mouth. DO NOT induce vomiting. Get medical attention.

Most Important Symptoms and Effects both Acute and Delayed:

The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11

Indication of Any Immediate Medical Attention and Special Treatment Needed:

No data available

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use water spray

Unsuitable Extinguishing Media: Reacts violently with fire extinguishing agents such as carbon dioxide (CO₂)



Special Hazards Arising from the Substance or Mixture

Fire Hazard:	Not flammable. Under conditions of fire this material may produce: Nitrogen oxides, nitrogen, ammonia.
Explosion hazard:	Ammonia vapor concentrations between 16% and 25% can explode on contact with ignition source.
Advice for Firefighters:	Keep upwind. Use water spray or fog for cooling exposed containers. Wear self-contained breathing apparatus for firefighting if necessary.
Other information:	Do not allow run-off from fire fighting to enter drains or water ways.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

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.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Eliminate ignition sources.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Stop leak if safe to do so. Ventilate area.

Emergency Precautions: Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

Methods and Material for Containment and Cleaning Up:

Stop the flow of material, if this is without risk. Ventilate area. Contain any spills with dikes or absorbents. Clean up spills immediately and dispose of waste safely. Never neutralize spill with acid.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

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. 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 soap and water before eating, drinking, or smoking and again when leaving work. Wash contaminated clothing before reuse.

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. Storage containers should have safety relief valves. Store locked up.

Incompatible Materials: Forms explosive compounds with calcium hypochlorite, bleaches, gold, mercury, silver, chlorine and other halogens.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits:

Ammonia, CAS No. 7664-41-7		
USA ACGIH	ACGIH TWA	25 ppm
USA ACGIH	ACGIH STEL	35 ppm
USA OSHA	OSHA PEL (TWA)	50 ppm
USA NIOSH	NIOSH REL (TWA)	25 ppm
USA NIOSH	NIOSH REL (STEL)	35 ppm
Alberta	TWA / STEL	25 ppm(TWA), 35 ppm
British Columbia	TWA / STEL	25 ppm(TWA), 35 ppm
Manitoba	TWA / STEL	25 ppm(TWA), 35 ppm
New Brunswick	TWA / STEL	25 ppm(TWA), 35 ppm
Newfoundland & Labrador	TWA / STEL	25 ppm(TWA), 35 ppm
Northwest Territories	TWA / STEL	25 ppm(TWA), 35 ppm
Nova Scotia	TWA / STEL	25 ppm(TWA), 35 ppm
Nunavut	TWA / STEL	25 ppm(TWA), 35 ppm
Ontario	TWA / STEL	25 ppm(TWA), 35 ppm
Prince Edward Island	TWA / STEL	25 ppm(TWA), 35 ppm
Québec	TWA / STEL	25 ppm(TWA), 35 ppm
Saskatchewan	TWA / STEL	25 ppm(TWA), 35 ppm
Yukon	TWA / STEL	25 ppm(TWA), 35 ppm

Exposure Controls:

Appropriate Engineering Controls: Provide sufficient ventilation to keep ammonia vapors below the permissible exposure limit. Emergency eye wash fountains and safety showers should be available in the vicinity of any potential exposure.

Personal Protective Equipment:

Hand Protection: Chemical resistant gloves.

Eye Protection: Chemical safety goggles and face shield.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respirator protection should be worn.



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Physical and Chemical Properties:

Appearance:	Colorless
Odor:	Pungent
Odor threshold:	1 – 50 ppm
Vapor density:	0.6
pH:	12 - 14
Evaporation Rate:	Not available
Melting Point:	-77 °C (-105 °F) (< 44% NH ₃)
Freezing Point:	-38 °C (-36 °F)
Flash point:	Not relevant
Auto-ignition Temperature:	651 °C (1,204 °F)
Decomposition Temperature:	Not available
Flammability (solid, gas):	Not available
Lower Flammable Limit:	16% (ammonia vapor)
Upper Flammable Limit:	25% (ammonia vapor)
Vapor Pressure:	49642.2 Pa at 68 °F (20 °C)
Relative Vapor Density at 20 °C:	0.6 (ammonia vapor over aqua ammonia at 0°C)
Relative Density:	Not available
Specific Gravity:	0.90 at 60 °F (19% NH ₃)
Solubility:	Soluble in water.
Partition Coefficient: n-Octanol/water:	-1.14 at 25 °C
Auto-ignition temperature:	Not available
Viscosity:	Not relevant

SECTION 10: STABILITY AND REACTIVITY

Reactivity and Chemical Stability: 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. Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: 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: Ammonia, Nitrogen oxides, Nitrogen.

SECTION 11: TOXICOLOGY INFORMATION

Acute Toxicity: Oral: Harmful if swallowed Inhalation: Harmful if inhaled.

LD50 and LC50 Data: derived: LD50 Oral Rat: 1842 mg/kg (19% Ammonium hydroxide solution)

Skin Corrosion/Irritation: Causes severe skin burns and eye damage

Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization: May cause respiratory irritation.

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified



Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Aspiration Hazard: Not classified

Symptoms/Injuries after 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.

Symptoms/Injuries after Skin Contact: Corrosive. Causes burns. Symptoms may include: Redness. Pain. Serious skin burns. Blisters.

Symptoms/Injuries after Eye Contact: Causes serious eye damage. Symptoms may include: Redness. Pain. Blurred vision. Severe burns. Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries after Ingestion: Harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: None known.

LD50 and LC50 Data (ingredients):

Ammonium hydroxide, CAS No. 1336-21-6	
LD50 Oral Rat	350 mg/kg
ATE US (gases)	10,256.41 ppmV/4h

SECTION 12: ECOLOGY INFORMATION

Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Call manufacturer or CHEMTREC.

SECTION 14: TRANSPORTATION INFORMATION

Agency	UN Number	Proper Shipping Name	Hazard Class	Label Codes	PG	Marine Pollutant	Other
US DOT	UN2672	Ammonia Solutions (with more than 10% but not more than 35% ammonia)	8	8	III	Yes	ERG-154
Canadian TDG	UN2672	Ammonia Solutions (with more than 10% but not more than 35% ammonia)	8	8	III	Yes	---
IMDG (Vessel)	UN2672	Ammonia Solutions (with more than 10% but not more than 35% ammonia)	8	8	III	Yes	MP(P) F-A S-B
IATA (Air)	Contact the manufacturer						



SECTION 15: REGULATORY INFORMATION

US Federal Regulations:

Emergency Planning and Community Right-To-Know Act (EPCRA), a/k/a Superfund Amendments and Reauthorization Act (SARA) Title III
 Toxic Substances Control Act (TSCA)
 TSCA Section 8

Ammonium hydroxide, CAS No. 1336-21-6

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
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Ammonium hydroxide, CAS No. 1336-21-6

Listed on the United States TSCA (Toxic Substance Control Act) Inventory
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Canadian Regulations:

Domestic Substances List (DSL)
 Workplace Hazardous Materials Information System (WHMIS)

Ammonium hydroxide, CAS No. 1336-21-6

DSL	Listed on the Canadian DSL
IDL	Listed on the Canadian IDL
IDL Concentration	1%
WHMIS Classification	Class E – Corrosive Material Class D Division 1 Subdivision A – Very toxic material causing immediate and serious toxic effects.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF LAST REVISION

This SDS was prepared in accordance with US (29 CFR 1900.1200) and Canadian (WHMIS 2015) requirements.

SDS: P-14

Initial Issue Date: 09/28/2016

Last Revision Date: n/a

Version: 1

Party Responsible for the Preparation of this Document:

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 Cleveland, OH 44122
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This information is based on Austin Powder Company's current knowledge and is intended to describe the product for the purposes of health and safety requirements only. It should not be construed as guaranteeing any specific property of the product.