

Ammonium Hydroxide 28%

1. Identification

Product Name: Ammonium Hydroxide 28%

Item #:

Synonyms: Ammonia Aqueous, Ammonia Water

Recommended Use: N/A

Restrictions on Use: N/A

Manufacturer/Supplier:

In Case of Emergency:

Avantik

Chemtrec US 1-800-424-9300

19 Chapin Road - Building C

Chemtrec International 703-527-3887

Pine Brook, NJ 07058

800.783.9424

2. Hazards Identification

OSHA Hazard Classification(s):

Acute Toxicity - Oral - Category 4

Skin Corrosion - Category 1A

Eye Damage - Category 1

Signal Word: Danger

Hazard Statement(s): Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage.

Pictogram(s):



Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dusts or mists. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection, face protection.

Response: If swallowed: Call a doctor if you feel unwell. Rinse mouth. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off all contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor. Specific treatment (see first aid section on this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Ammonium Hydroxide		1336-21-6	28-30
Water		7732-18-5	Balance

4. First Aid Measures

Eye Contact: 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 advice/attention immediately.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention immediately.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention immediately.

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Symptoms: Irritation eyes, nose, throat; headache, dizziness.

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam, water.

Fire Hazards (Chemical): Not flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

Storage: Store locked up. Store in a well-ventilated, cool place. Keep lid tightly closed when not in use.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Ammonia	7664-41-7	50ppm

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Ammonia	7664-41-7	25ppm	35ppm

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Clear, Liquid

Molecular Weight: 35.05

Molecular Formula: NH₄OH

pH: N/A

Boiling Point and Boiling Range: N/A

Melting Point/Freezing Point: N/A

Flash Point: N/A

Specific Gravity/Relative Density: 0.000

Odor: Ammoniacal

Odor Threshold: N/A

Color: Clear

Flammability (solid/gas): N/A

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Vapor Density: N/A
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: N/A
Evaporation Rate: N/A
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: N/A
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity: N/A
Chemical Stability: Stable
Conditions of Stability/Instability: N/A
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases, Copper, Iron Zinc, halogens, salts of silver & zinc
[Note: Corrosive to copper & galvanized surfaces.]
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Liquid is corrosive to eyes. May cause permanent corneal damage or blindness. Vapors are irritating to the eyes, may cause tearing or stinging.

Skin: Corrosive to skin. May cause permanent skin damage, chemical burns, redness, irritation or pain.

Inhalation: Dizziness, headache, dyspnea (breathing difficulty), wheezing, chest pain; pulmonary edema; pink frothy sputum. Vapors and mist cause irritation to the respiratory tract.

Ingestion: Poison. Toxic by ingestion. May cause death. May cause corrosion to the esophagus and stomach with perforation and peritonitis.

Signs or Symptoms of Exposure: Nausea. Irritation of skin, eyes, nose, throat, lungs. Breathing irregularities.

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.

Acute Toxicity (Numerical Measures): LD50(oral,rat)=350 mg/kg

Carcinogenicity (NTP, IARC, OSHA): Not listed as a carcinogen.

12. Ecological Information

Ecotoxicity: Toxicity to fish; mortality NOEC -Oncorhynchus tshawytscha-3.5mg/l-3.0d; Toxicity to daphnia and other aquatic invertebrates: LC50-Daphnia magna (water flea)-32mg/l-50h

Persistence and degradability: N/A

Bioaccumulation Potential (octanol-water partition coefficient, BCF): N/A

Mobility in the soil: N/A

Adverse Environmental Effects: Very toxic to aquatic life.

13. Disposal Considerations

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Recommended Disposal Containers: Check with your local waste authorities.*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: UN2672

UN Proper Shipping Name: Ammonia Solutions (with 10-35% Ammonia)

Transport Hazard Class(es): 8

Packing Group Number: III

Environmental Hazards (IMDG code):

Marine Pollutant: No

Transport in Bulk (IBC Code): N/A

Special Transport Precautions: N/A

15. Regulatory Information

OSHA:

DOT:

EPA:

CPSC:

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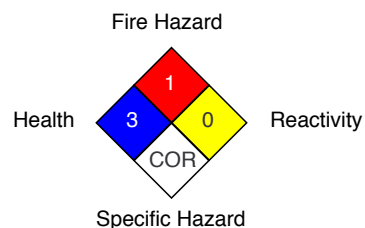
16. Other Information

Revision Date: 01/07/2015

NFPA

Health	3
Fire Hazard	1
Reactivity	0
Specific Hazard	COR

National Fire Protection Association (USA) NFPA



HMIS

Health	3
Flammability	1
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	3
Flammability	1
Physical Hazard	0
Personal Protection	

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