

Safety Data Sheet

Section 1. Product and Company Identification

Product Identification: 1000 µg/mL Ammonium in Water
MSDS Number: IC-NH-M
Recommended Use: For Laboratory Use.
Company Identification: High-Purity Standards
P.O. Box 41727
Charleston, SC 29423
Telephone: (843) 767-7900
FAX: (843) 767-7906
In case of emergency call INFOTRAC: 800-535-5053

Section 2. Hazard Identification

Classification:

None

Labeling:

Symbol: None

Signal Word: None

Hazard Statement: None

Precautionary Statement: None

Section 3. Composition

Component	CAS/EINECS Registry #	Percent Concentration
Ammonium Chloride (NH ₄ Cl)	12125-02-9/235-186-4	0.1 (as NH ₄)
Water, deionized	7732-18-5/231-791-2	Balance

Section 4. First Aid Measures

Emergency Overview: May cause irritation. Wash areas of contact with water.

Skin/eye Contact: May cause slight irritation. Remove contaminated shoes and clothing. Flush contaminated area with plenty of water for at least 15 minutes. Call a physician if irritation develops.

Inhalation: Not likely to be hazardous by inhalation.

Ingestion: May cause irritation to stomach if ingested in large quantities. Rinse mouth with water. Dilute with water or milk.

Section 5. Fire Fighting Measures

Fire & Explosion hazards: Not considered to be a fire or explosion hazard.

Extinguishing Media: Use any extinguishing media that is suitable for the surrounding area.

Specific Methods: Firefighters should wear proper protective equipment and breathing apparatus for surrounding fire.

Section 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Dilute with water and mop up or absorb spills with absorbent (vermiculite, sand, fuller's

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earth) and place in plastic bags for later disposal. Always dispose of in accordance with local regulations.

Section 7. Handling and Storage

Store in a cool, dry, ventilated storage area. Keep away from incompatible materials. Keep container tightly sealed. Refer to Section 8 for personal handling instructions.

Section 8. Exposure Controls and Personal Protection

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Personal Protection: Wear proper gloves, safety glasses with side shields, lab coat/apron.

Exposure Limits:

Component	ACGIH TLV
Ammonium Chloride	10 mg/m ³

:

Section 9. Physical and Chemical Properties

Physical State: Liquid

Color: Clear, colorless liquid

Odor: Odorless

Odor threshold: None

pH: 5-8

Melting point: N/A

Freezing Point: N/A

Boiling Point: Approximately 100°C

Flash point: N/A

Evaporation rate: N/A

Flammability: N/A

Explosion limits: N/A

Vapor Pressure (mm): N/A

Vapor Density (air+1): N/A

Relative density: (H₂O = 1): Approximately 1.0

Solubility in H₂O: Complete

Auto ignition temperature: N/A

Decomposition temperature: N/A

Molecular Weight: 18.04 (NH₄)

Section 10. Stability and Reactivity

Stability Indicator: YES

Conditions to Avoid: Incompatibles.

Incompatibles: Concentrated acids, strong bases, silver salts, potassium chlorate, ammonium nitrate, bromine trifluoride and iodine heptafluoride. Ammonium chloride reacts explosively with potassium chlorate or bromine trifluoride, and violently with bromine pentafluoride, ammonium compounds, nitrates, and iodine heptafluoride. Explosive nitrogen trichloride may result from reaction of ammonium chloride and hydrogen cyanide.

Hazardous Decomposition Products: HCl and NH₃ upon evaporation to dryness.

Hazardous Polymerization: Will not occur.

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Section 11. Toxicological Information

Toxicity Data:

RTECS#-NH₄Cl: BP4550000

LD₅₀ Oral, Rat: (Ammonium Chloride) 1650 mg/kg.

Section 12. Ecological Information

Ecotoxicological information: For solid ammonium chloride the LC50/48-hour values in freshwater barb are 295-315 mg/L.

Section 13. Disposal Considerations

General: Follow Federal, state and local regulations for waste.

Section 14. Transport Information

D.O.T. Classification: Not hazardous by DOT regulations

Section 15. Regulations (Not meant to be all inclusive-selected regulation listed)

TSCA Status: The components of this solution are listed on the TSCA Inventory.

RCRA Status: No

SARA: No

CERCLA: 5000 lb final RQ; 2270 kg final RQ

Safety Phrases: S25 Avoid contact with eyes.

Risk Phases: R22 R36 Harmful if swallowed. Irritating to the eyes.

WHMIS Information (Canada): Not applicable at this concentration

Section 16. Other Information

HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel only. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The MSDS was prepared carefully and represents the best data currently available to us; however, HPS does not certify the data on the MSDS. Certified values for this material are given only on the Certificate of Analysis.

Theodore C. Rains, Ph.D.