





MATERIAL SAFETY DATA SHEET

WQ-NH4

Section I. Product Identification

Product Name: 1000ppm Ammonium or Ammonia Standard solution (NH ₄ ⁺ or NH ₃ as N)	Catalog No. SD2002-MSDS	Effective Date 10/25/02
Hazardous Shipment Labeling:	DOT None	IATA None
Prepared by 	Title Quality Assurance Chemist	
Approved by 	Title Director Regulatory Matters	

Section II - Hazard Ingredients/Identity Information

Hazardous Components Specific Chemical Identity; Common Name(s)	CAS No.	%	OSHA PEL	ACGIH TLV	LD ₅₀
Ammonium Chloride (NH ₄ Cl)	12125-02-9	<0.4	None Listed	TWA 10 mg/m ³	600 (ORL-DOG)
Deionized Water (H ₂ O)	7732-18-5	99.6	None Listed	None Listed	190,000 (IPR-MUS)

Section III - Physical/Chemical Characteristics

Boiling Point 750mm Hg	100°C	Freezing Point	-1°C
Specific Gravity (H ₂ O = 1)	1.01	Vapor Pressure at	NA
pH at 25 °C	(5.0 – 8.0)	Solubility in water, % by wt at 25°C	Miscible
Volatiles, % by wt	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Vapor Density (AIR = 1) NA			
Appearance and Odor Clear, colorless, odorless solution			

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) Not flammable	Flammable Limits	LEL NA	UEL NA
Extinguishing Media Dry chemical, water, foam or CO ₂			
Special Fire Fighting Procedures Self-contained breathing apparatus should be worn.			
Unusual Fire and Explosion Hazards None			

Section V - Reactivity Data

Stability		Conditions to Avoid
Unstable	Stable X	Heat or Flame
Incompatibility (Materials to Avoid): Oxidizers, BrF ₃ , KClO ₃ , Hypochlorite Bleaches, NH ₄ NO ₃		
Hazardous Decomposition or Byproducts Emits toxic fumes when heated to decomposition		
Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur X	Heat



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Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation? No	Skin? No	Ingestion? Yes
Health Hazards (<i>Acute and Chronic</i>) Acute: Ingestion of large doses can cause nausea, vomiting, and acidosis. Chronic: difficulty breathing, weakness. Low hazard for skin and inhalation.			
Carcinogenicity: Not found on these lists.	NTP?	IARC Monographs?	OSHA Regulated?
Signs and Symptoms of Exposure Coughing, dyspnoea, irritation of upper respiratory tract and stomach.			
Medical Conditions Generally Aggravated by Exposure Respiratory and stomach ailments.			
Emergency and First Aid Procedures Skin and eyes - Wash off contact area with large amounts of water for 15 minutes. If ingested, induce vomiting. Consult a physician.			

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled	Vacuum up and set aside for waste disposal.
Waste Disposal Method	Observe all Federal, State and local laws when disposing of this product.
Precautions to Be taken in Handling and Storing Keep well sealed and store away from heat or oxidizers. NFPA Rating: Scale (0-4); Health - 1, Fire - 0, Reactivity - 1, Specific - 0.	
Other Precautions SARA TITLE III: NH4Cl appears on EPA list 302.4 of 40CFR. Not found on Cal. Prop. 65 listing. Reported in EPA TSCA inventory.	

Section VIII - Control Measures

Respiratory Protection (<i>Specify Type</i>)	None		
Ventilation	Local Exhaust	None	Special None
	Mechanical (<i>General</i>)	None	Other None
Protective Gloves	No	Eye Protection	Safety Glasses
Other Protective Clothing or Equipment	Lab coat		
Work/Hygienic Practices Emergency eyewash should be available. Wash hands after working with this product. No eating or drinking while working with this product.			