



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. AA242  
Effective Date January 22, 1999

## SECTION V

## HEALTH HAZARD DATA

AA 242

### Threshold Limited Value

None established for this solution. As Ammonium chloride  
TWA: 10 mg/m<sup>3</sup> as fume. STEL 20 mg/m<sup>3</sup>. (ACGIH 1992-93).

### Effects of Overexposure

May be harmful by ingestion. May cause irritation. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.

### Emergency and First Aid Procedures

**INHALATION AS MIST:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. If irritation develops, get medical attention. **INGESTION:** If swallowed, **DO NOT** induce vomiting. If conscious, give large amounts of water to drink and call physician. Never give anything by mouth to an unconscious person.

## SECTION VI

## REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Excessive temperature to cause evaporation.
	Stable	X	

Incompatibility (Materials to Avoid)	Oxidizing agents acids, bases. Lead and silver salts.
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Hazardous Decomposition Products	Thermal decomposition will emit ammonia and hydrogen chloride.
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Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

## SECTION VII

## SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled	Absorb with an inert dry material, sweep up and place in a suitable container for proper disposal. Wash spill area with soap and water.
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Waste Disposal Method	Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.
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Dispose of in accordance with federal, state and local regulations.

## SECTION VIII

## SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	None needed in normal laboratory handling. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved dust mask.
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Ventilation	Local Exhaust	Not required.	Special	No.
	Mechanical (General)	Not required.	Other	No.

Protective Gloves	Rubber.	Eye Protection	Chemical safety glasses.
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Other Protective Equipment	Goggles, smock, apron, proper gloves, eye wash station.
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## SECTION IX

## SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	Store in a cool, dry place. Avoid contact with eyes and skin. Wash thoroughly after handling.
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Keep container tightly closed when not in use.

Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals.
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Ammonium chloride solutions have a tendency to attack ferrous metal and other metal surfaces, especially those of copper, brass and bronze. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision	No. 1	Date	1/22/99	Approved	Michael Raszeja	Chemical Safety Coordinator	MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. \* Hazardous Materials Industrial Standards. Printed on recycled paper.

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	AMMONIUM CHLORIDE 2 M SOLUTION
Chemical Synonyms	Ammonium Chloride Aqueous Solution
Formula	Mixture.
Unit Size	up to 4 Lt.
C.A.S. No.	Mixture.

CHEMTREC  
800-424-9300  
Day 716-226-6177

NFPA HAZARD RATING  
LEAST SLIGHT MODERATE HIGH EXTREME  
0 1 2 3 4

Health	1
Fire	0
Reactivity	0

HMIS \*

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Ammonium Chloride: (CAS No. 12125-02-9)	10.7%	See Section V.
Water: (CAS No. 7732-18-5)	89.3%	None established.
CAUTION! MAY BE HARMFUL IF SWALLOWED. MAY CAUSE SKIN AND EYE IRRITATION.		

## SECTION III PHYSICAL DATA

Melting Point (°F)	Freezes @ approx. 0°C (32°F)	Specific Gravity (H <sub>2</sub> O = 1)	Approx. 1.0
Boiling Point (°F)	Approx. 100°C (212°F)	Percent Volatile by Volume (%)	89.3%
Vapor Pressure (mm Hg)	14 (water)	Evaporation Rate (Water = 1)	Slightly < 1
Vapor Density (Air=1)	0.7 (water)		
Solubility in Water	Complete.		
Appearance & Odor	Clear, water-white, water-like liquid; no odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable solid.	Flammable Limits in Air % by Volume	N/A	Lower	Upper
Extinguisher Media	Use any media suitable for extinguish supporting fire.				

### SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing.

### UNUSUAL FIRE AND EXPLOSION HAZARDS

In fire conditions, water may evaporate from this solution, which may cause hazardous decomposition products to be produced as dust or fume.

D.O.T. NON-REGULATED.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20