


MATERIAL SAFETY DATA SHEET

**ALDON
CORPORATION**

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MSDS No. SS 161
Effective Date March 3, 1998

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	SILVER NITRATE SOLUTION	<div><div>CHEMTREC 800-424-9300 Day 716-226-6177</div><div>NFPA HAZARD RATING</div><table><tr><td>LEAST</td><td>SLIGHT</td><td>MODERATE</td><td>HIGH</td><td>EXTREME</td></tr><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td></tr></table></div>	LEAST	SLIGHT	MODERATE	HIGH	EXTREME	0	1	2	3	4
LEAST	SLIGHT		MODERATE	HIGH	EXTREME							
0	1		2	3	4							
Chemical Synonyms	1%; 10%; 1.0 N; 0.1 N; 0.01 N; 0.02N; 0.05N											
Formula	Mixture *											
Unit Size	up to 4 Lt.											
C.A.S. No.	Mixture *											
		<table><tr><td>Health</td><td>2</td></tr><tr><td>Fire</td><td>0</td></tr><tr><td>Reactivity</td><td>0</td></tr></table> <div>HMIS * HIGH EXTREME</div>	Health	2	Fire	0	Reactivity	0				
Health	2											
Fire	0											
Reactivity	0											

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Silver Nitrate 1% Solution	1%	See Section V.
10% Solution	10%	
1.0 Normal Solution	16.98%	
0.1 Normal Solution	1.69%	
0.01 Normal Solution	0.16%	
0.02 Normal Solution	0.32%	
0.05 Normal Solution	0.80%	

WARNING! MAY BE HARMFUL IF SWALLOWED. IRRITANT TO SKIN, EYES AND MUCOUS MEMBRANES.

SECTION III PHYSICAL DATA

Melting Point (°F)	Freezes approx. 0°C (32°F)	Specific Gravity (H ₂ O = 1)	1.0-1.1 at 20°C
Boiling Point (°F)	Approx. 100°C (212°F) water	Percent Volatile by Volume (%)	83-99%
Vapor Pressure (mm Hg)	14 (water)	Evaporation Rate (Water = 1)	Slightly less than 1.
Vapor Density (Air=1)	0.7 (water)		
Solubility in Water	Complete.		
Appearance & Odor	Clear, colorless liquid; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

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

SPECIAL FIREFIGHTING PROCEDURES

Wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes. Use flooding amounts of water in early stages of fire.

* Silver Nitrate: (CAS No. 7761-88-8)
Nitric Acid: (CAS No. 7697-37-2)
Water: (CAS No. 7732-18-5)
Molarity = Normality

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 and fumes.

D.O.T. NON-REGULATED.

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

SECTION V**HEALTH HAZARD DATA**

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Threshold Limited Value

None established for this solution.
(ACGIH 1992-93) TWA: 0.01 mg/m³ as silver metal as soluble compounds
0.1 mg/m³ as silver metal.

Effects of Overexposure

CONTACT: May cause burns to skin, eyes and mucous membranes. Discolors skin on contact. **INGESTION:** May be harmful if swallowed. Exercise appropriate procedures to minimize potential hazards.

Emergency and First Aid Procedures

INGESTION: If conscious, give a teaspoonful of table salt (Sodium Chloride) dissolved in a glass of warm water to drink. Get immediate medical attention. Never give anything by mouth to an unconscious person. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention. **SKIN:** Flush thoroughly with water for at least 15 minutes. **INHALATION AS MIST:** Remove to fresh air.

SECTION VI**REACTIVITY DATA**

Stability	Unstable		Conditions to Avoid	Excessive temperature to cause evaporation. Protect from light.
	Stable	X		
Incompatibility (Materials to Avoid)		When dry, reducing materials; charcoal, ammonium hydroxide, alcohol and organic materials can cause a reaction.		
Hazardous Decomposition Products			Thermal decomposition produces metallic silver, nitrogen, oxygen and oxides of nitrogen.	
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 in vermiculite, sand, earth or paper towel. Scoop 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.

Dispose of in an approved chemical landfill or contract an approved and licensed disposal agency.

SECTION VIII**SPECIAL PROTECTION INFORMATION**

Respiration Protection (Specify Type)	None needed in normal laboratory handling. If misty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved respirator.			
Ventilation	Local Exhaust	Not required.	Special	No.
	Mechanical (General)	Not required.	Other	No.
Protective Gloves		Rubber.	Eye Protection	Chemical safety glasses.
Other Protective Equipment	Goggles, smock, apron, proper gloves and eye wash station.			

SECTION IX**SPECIAL PRECAUTIONS**

Precautions to be Taken in Handling & Storing	Store in a cool place and protect from light. Do not store near combustible material. Wash thoroughly after handling.
Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals.
Avoid breathing mist. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing.	

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

Revision	No. 8	Date	3/03/98	Approved	Michael Raszeja	Chemical Safety Coordinator	MR
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