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#540

MSDS No. SS 161
Effective Date July 1, 1986

SECTION I NAME

Product	SILVER NITRATE SOLUTION
Chemical Synonyms	10%; 1.0 Normal; 0.1 Normal
Formula	$AgNO_3$/water
Unit(s) Size	500, 1000 ml.
C.A.S. No.	7761-88-8

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC 800-424-9300
Day 716-226-6177
Night 716-334-4222

NFPA HAZARD RATING

Health	3
Fire	0
Reactivity	0

LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Silver Nitrate 10% Solution	10%	See Section V
1.0 Normal Solution	17%	
0.1 Normal Solution	1.7%	
DANGER! MAY BE HARMFUL IF SWALLOWED-MAY CAUSE BURNS.		

SECTION III PHYSICAL DATA

Melting Point (°F)	Liquid (NA)	Specific Gravity (H_2O = 1)	1.0-1.1 at 20°C
Boiling Point (°F)	Approx. 100°C (water)	Percent Volatile by Volume (%)	83-98%
Vapor Pressure (mm Hg)	14 (water)	Evaporation Rate (Ether = 1)	Greater than 1
Vapor Density (Air = 1)	0.7 (water)		
Solubility in Water	Complete		
Appearance and Odor	Clear, colorless liquid; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

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

SPECIAL FIREFIGHTING PROCEDURES

Wear a NIOSH-approved self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes. TOXIC. Dangerous to eyes in solid or dust form; skin and respiratory irritation. Wear goggles.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Will not support fire when wet. When dry increases flammability of combustible, organic or other readily oxidizable materials. Fire or excessive heat may produce hazardous decomposition products.

T.	NON-REGULATED

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

SECTION V HEALTH HAZARD DATA

Threshold Limited Value

TWA: 0.01 mg/m³ as silver metal as soluble compounds
0.1 mg/m³ as silver metal. (ACGIH 1984-85)

Effects of Overexposure

CONTACT: May cause burns to skin and eyes. Discolors skin.
INGESTION: May be harmful if swallowed.

Emergency and First Aid Procedures

INGESTION: If swallowed, if conscious, give one or two glasses of water and call a physician immediately.
EYES: Flush with water for at least 15 minutes. Get immediate medical attention.
SKIN: Flush thoroughly with water.

SECTION VI REACTIVITY DATA

Stability			Conditions to Avoid
	Unstable		
	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	
	x	----------

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled

Absorb in vermiculite, sand or earth.
Scoop up and place in a suitable container.

Waste Disposal Method

Dispose of in an approved chemical landfill or contract an approved and licensed disposal agency. Discharge, treatment or disposal may be subject to federal, state or local laws.

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SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)

None should be needed in normal laboratory use. If liquid spray is used, work in a fume hood.

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 and Storing

Keep container tightly closed when not in use.

Store in a cool place and protect from light.
Wash thoroughly after handling.

Other Precautions

Read label on container before using.
Discolors skin on contact.

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

Rev. No. No 1	Date 1/12/87	Approved [signature]	Chemical Safety Coordinator

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