



221 Rochester Street  
Avon, NY 14414  
(585) 226-6177

# MATERIAL SAFETY DATA SHEET

MSDS No.: SS0180  
Revision Date: January 12, 2012  
Approved by: James A. Bertsch

MSDS No.: SS0180

## Section 1 Chemical Product and Company Information

|                 |  |
|-----------------|--|
| <b>Product</b>  | <b>SILVER NITRATE, 0.1 MOLAR (0.1N) SOLUTION</b> |
| <b>Synonyms</b> | Silver Nitrate, Water Solution                   |

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300

## Section 2 Hazards Identification

Emergency Overview

**CAUTION!**  
MAY BE HARMFUL IF SWALLOWED.  
IRRITANT TO SKIN, EYES AND MUCOUS MEMBRANES.  
Avoid breathing mist. Avoid contact with skin, eyes and clothing.  
Light sensitive. Target organs: Liver, kidneys.

0 = Minimal  
1 = Slight  
2 = Moderate  
3 = Serious  
4 = Severe

|                   |   |
|-------------------|---|
| <b>Health</b>     | 2 |
| <b>Fire</b>       | 0 |
| <b>Reactivity</b> | 0 |
| <b>Contact</b>    | 2 |

HMIS \*

## Section 3 Composition / Information on Ingredients

| Chemical Name  | CAS #     | %     | TLV Units   |
|----------------|-----------|-------|---|
| Silver Nitrate | 7761-88-8 | 1.7%  | TWA: 0.01 mg/m <sup>3</sup> soluble compounds as AG |
| Water          | 7732-18-5 | 98.3% | None established. (ACGIH 2001)                      |

## Section 4 First Aid Measures

**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN CONTACT:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## Section 5 Fire Fighting Measures

**General information:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. In fire conditions, water may evaporate from this solution which may cause hazardous decomposition products to be formed as dust or fume. Use water spray to keep fire-exposed containers cool.

**Extinguishing Media:** Carbon dioxide, dry chemical, water spray, alcohol foam.

**Flash Point:** N/A

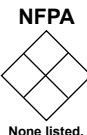
**Autoignition temperature:** N/A

**Explosion Limits: Lower:** N/A **Upper:** N/A

## Section 6 Accidental Release Measures

Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation. Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water. Avoid runoff into storm sewers and ditches which lead to waterways.

0 = Minimal  
1 = Slight  
2 = Moderate  
3 = Serious  
4 = Severe



None listed.

## Section 7 Handling & Storage GENERAL STORAGE CODE GREEN

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.  
**Handling:** Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale vapors, spray or mist. Wash thoroughly after handling. Remove and wash clothing before reuse.  
**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Protect from light.

## Section 8 Exposure Controls / Personal Protection

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical & Chemical Properties

**Physical state:** Liquid.  
**Appearance:** Clear, colorless.  
**Odor:** No odor.  
**pH:** N/A  
**Vapor pressure (mm Hg):** 14 (water)  
**Vapor Density (Air = 1):** 0.7 (water)  
**Evaporation rate (Butyl acetate = 1):** < 1  
**Viscosity:** N/A

**Boiling point:** ~100°C (212°F) (water)  
**Freezing / Melting point:** ~0°C (32°F) (water)  
**Decomposition temperature:** N/A  
**Solubility:** Complete.  
**Specific gravity (H<sub>2</sub>O = 1):** ~1.0 (water)  
**Percent volatile (%):** 98.3%  
**Molecular formula:** Mixture.  
**Molecular weight:** Mixture.

## Section 10 Stability & Reactivity

**Chemical stability:** Stable  
**Hazardous polymerization:** Will not occur.  
**Conditions to avoid:** Excessive temperature to cause evaporation.

**Incompatibilities with other materials:** Combustible materials, reducing agents, organic substances, strong basis and alkalis.

**Hazardous decomposition products:** Metallic silver, oxides of nitrogen, and oxygen.

## Section 11 Toxicological Information

**Effects of overexposure:** May be harmful by ingestion. May cause irritation and/or burns. 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.

ORL-MOUSE LD50: 50 mg/kg (Silver nitrate)  
ORL-RAT LD50: >500 mg/kg (Silver nitrate)  
ORL-MAN LDLO: 2 g/150 lb. human (Silver nitrate)

## Section 12 Ecological Information

Data not yet available.

## Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14 Transport Information

**UN/NA number:** N/A  
**Shipping name:** Not Regulated.  
**Hazard class:** N/A  
**Packing group:** N/A  
**Exceptions:** N/A

## Section 15 Regulatory Information

As Silver nitrate: TSCA-listed, EINECS-listed (231-853-9), RCRA code D001, D011

## Section 16 Additional Information

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.