



SAFETY DATA SHEET

1. Identification:

Product Identifier: Silver Nitrate Aqueous Solutions

Product code: BS8703 = 0.010 N BS4452 = 0.0141N BS4450 = 0.0171N BS4448 = 0.0192N
BS8701 = 0.020 N BS8896 = 0.025 N BS8882 = 0.028 N BS4445 = 0.0282 N
BS8702 = 0.0285 N BS8445 = 0.0342 N BS8862 = 0.0493 N BS4444 = 0.050 N
BS8902 = 0.0855 N BS4442 = 0.100 N BS8431 = 0.141 N BS8448 = 0.153 N
BS4441 = 0.171 N BS8441 = 0.200 N BS4447 = 0.280 N BS4446 = 0.282 N
BS8821 = 0.380 N BS8440 = 0.400 N BS8439 = 0.500 N BS8434 = 0.513 N
BS4440 = 1.00 N BS8438 = 1.57 N BS8436 = 1.71 N BS8708 = 2.00 N
BS8432 = 0.3% (w/v) BS8450 = 1% (w/v) BS8428 = 2% (w/v) BS8874 = 3% (w/v)
BS8808 = 5% (w/v) BS8447 = 10% (w/v)

Synonym(s): Aqueous Silver Nitrate various dilutions

Recommended use: Manufacture of other chemical products, professional, scientific, and technical activities.

Recommended restrictions: None known.

Manufacturer/Supplier/Distributor Information

Company name: Biopharm Inc.
Address: 187 South Tilley Road
Hatfield, AR 71945
Telephone: (870) 389-6114
Website: www.bphchem.com
E-mail: support@bphchem.com
Emergency phone number: Chemtrec 800-424-9300

2. Hazard(s) identification:

Classification: This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
Target Organs-Liver, Kidney Category 2
Serious eye damage/eye irritation Category 2

Label elements:



Signal word: Warning

Hazard statement: Causes serious eye irritation. Harmful if inhaled. May cause damage to organs through prolong or repeated exposure

Precautionary statement:

Prevention Wash face, hands and any exposed skin thoroughly after handling
Do not get in eyes, on skin, or on clothing
Wear eye/face protection
Wear protective gloves

Response Get medical attention/advice if you feel unwell

Storage	Store bottles tightly capped and upright. Store in well-ventilated place. Store locked up.
Disposal	To be performed in compliance with all current local, state and federal regulations. Spills onto sand, soil, or other absorbent may be handled by placing the affected soil into approved containers then label and store for proper treatment or disposal.
Hazard(s) not otherwise classified (HNOC):	None identified.
Supplemental information:	None.

3. Composition/information on ingredients

Mixtures

<u>Chemical Name</u>	<u>CAS number</u>	<u>%</u>
Silver Nitrate	7761-88-8	0.1-20
Water	7732-18-5	99.9-80

4. First-aid measures

Inhalation:	Remove person to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
Ingestion:	Never give anything by mouth to an unconscious person. Do not induce vomiting. Obtain medical attention.
Skin contact:	Flood area with water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing and clean shoes thoroughly before reuse. Get medical attention immediately if symptoms occur.
Eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes while holding lids gently, but firmly, apart. Lift upper and lower lids occasionally to ensure thorough flushing under them. Obtain medical attention.
Most important symptoms/effects, acute and delayed:	No information available.
General information:	No information found.

5. Fire-fighting measures

Suitable extinguishing media:	Foam. Dry powder. Carbon dioxide. Water spray. Sand
Unsuitable extinguishing media:	No information available.
Specific hazards arising from the chemical	Keep product and container away from heat and sources of ignition.
Special protective equipment and precautions for firefighters	Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.
Fire-fighting equipment/instructions	Use water spray to cool unopened containers.

NFPA Codes:

Health: 2

Flammability: 0

Reactivity: 0

6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures:

Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep out of low areas. Ensure adequate ventilation. Avoid inhalation of dust from the spilled material.

Methods and materials for containment and cleaning up:

Ventilate area. Wear protective clothing. Use an absorbent material such as sand, sawdust, or vermiculite to absorb small spills or any leakage that cannot be recovered for recycling. Wash area thoroughly with water after recovering released material. Avoid dust formation. Minimize dust generation and accumulation. For waste disposal, see section 13 of the SDS.

Environmental precautions:

Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses, or onto the ground. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

7. Handling and storage

Precautions for safe handling:

Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing. Avoid ingestion and inhalation. Avoid dust formation.

Conditions for safe storage, including any incompatibilities:

Store bottles tightly capped and upright. Keep in a cool and well-ventilated place.

8. Exposure controls/personal protection

Exposure Guidelines:

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering measures:

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment:

Eye/face protection:

Wear protective eyeglasses or chemical safety goggles.

Skin and body protection:

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance:

Clear, colorless liquid

Odor:

Odorless

Odor threshold:

No data available

Vapor Pressure (mm Hg):

No data available

Vapor density (Air = 1):

No data available

pH:

No data available

Relative density:

No data available

Melting point/freezing point:	No data available
Solubility in Water:	Infinite
Boiling Point (°F):	No data available
Flash point:	No data available
Evaporative Rate (H₂O = 1):	Varies with concentration of solution.
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits	
Flammability limit - lower	No data available
Flammability limit - upper	No data available
Explosive limit - lower	No data available
Explosive limit - upper	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Other information:	
Specific Gravity (H₂O = 1):	Varies with concentration of solution.
Percent Volatile by Volume:	No data available

10. Stability and reactivity

Reactivity:	None known based on information available.
Chemical stability:	Stable under ordinary conditions of use and storage.
Possibility of hazardous reactions:	Hazardous polymerization will not occur.
Conditions to avoid:	Extreme heat, contact with incompatible materials, and dust formation.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	Nitrogen oxides (NO _x)

11. Toxicological information

Information on likely routes of exposure:

Ingestion:	Expected to be a low ingestion hazard.
Inhalation:	Inhalation of dusts may cause irritation to the respiratory tract.
Skin Contact:	No adverse effects due to skin contact are expected.
Eye Contact:	Causes serious irritation to the eyes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects No information available

Acute toxicity No acute toxicity information is available for this product.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Silver Nitrate	1173 g/kg (rat)	No data available	No data available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	May cause skin irritation and discomfort.
Serious eye damage/irritation	May cause serious eye damage
Respiratory Sensitization	No data available.
Skin sensitization	No data available.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, NTP, or OSHA.
Mutagenic effects	No data available.
Reproductive effects	No data available.
STOT – single exposure	No data available.
STOT – repeated exposure	No data available.
Aspiration hazard	No data available.
Chronic effects	Prolong absorption of silver compounds can lead to grayish blue discoloration of skin (argyria)

12. Ecological information

Ecotoxicity:	Do not empty into drains. Harmful to aquatic life with long lasting effects.
Persistence and degradability:	Biodegradability: not applicable
Bioaccumulation/Accumulation:	No data available
Mobility in soil:	No data available
Other adverse effects:	No data available

13. Disposal considerations

Waste disposal methods:	To be performed in compliance with all current local, state and federal regulations. Spills onto sand, soil, or other absorbent may be handled by placing the affected soil into approved containers then label and store for proper treatment or disposal.
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14. Transport information

DOT:	Not regulated as dangerous goods.
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15. Regulatory information**U.S. Federal regulations**

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not applicable

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories	Immediate Hazard – Yes
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Delayed Hazard – No
Fire Hazard – No
Pressure Hazard – No
Reactivity Hazard – No

Other Federal regulations

Clean Air Act Not applicable
Clean Water Act Not applicable
California Prop 65 This product does not contain any Proposition 65 chemicals.

16. Other information, including date of preparation or last revision

Revision date January 27, 2017

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