

Material Safety Data Sheet

SECTION 1 -- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Bio Silver
EPA Reg No: 72977-3- 66397
Issue Date: 8/24/09
Date Revised: 2/17/10
Distributed By: Mid-Continent Packaging, Inc
1200 N. 54th Street
Enid, OK 73701

SECTION 2 -- COMPOSITION / INFORMATION ON INGREDIENTS

Components	Exposure Limits			
	Wt%	OSHA PEL	ACGIH TLV	NIOSH REL
None of the ingredients is considered hazardous according to the criteria of 29CFR1910.1200 and DOT Reg 49 CFR 172. Ingredients are listed for informational purposes to assist emergency medical response personnel.				
Water (CAS No. 7732-18-5)	>95	None	None	None
Citric Acid (CAS No. 77-92-9)	4.85	None	None	None
Silver Ions	0.0030	None	None	None

SECTION 3 -- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION: Direct contact may cause slight eye irritation. Avoid contact with eyes. If irritation occurs, flush thoroughly with large amounts of water for 15 minutes.

HMIS Rating

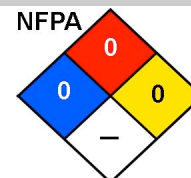
Health	0
Flammability	0
Reactivity	0

SECTION 4 -- FIRST AID MEASURES

Eye Contact: Hold eyelids open and flush thoroughly with a steady, gentle stream of water for at least 15 minutes. Get medical attention if irritation persists.
Skin Contact: If irritation occurs, rinse with water. Get medical attention if irritation persists. Does not stain skin.
Inhalation: If breathing is affected, remove victim to fresh air and call a physician
Ingestion: Do not induce vomiting. If irritation occurs consult a physician.

SECTION 5 -- FIRE FIGHTING MEASURES

Flammability: Not flammable; Not combustible
Flammable Limits: Not applicable
Extinguishing Media: Not applicable
Fire and Explosion Hazards: None



SECTION 6 -- ACCIDENTAL RELEASE MEASURES

Response to Spills: Small spills: Contain spill. Flush to sanitary sewer. Rinse area thoroughly with water. Large spills: Dike or dam spill. Pump to containers or soak up with inert absorbent. Prevent runoff to creeks and waterways.

SECTION 7 -- HANDLING AND STORAGE

Handling Precautions: Rinse with water if any irritation occurs. Keep container tightly closed when not in use.
Storage Precautions: Store in a cool, dry place. Do not contaminate food, feed, or drinking water. Keep from freezing. Keep out of direct sunlight.

SECTION 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION

No special protection or precautions have been identified for using this product under directed consumer use conditions. The following recommendations are given for production facilities and for other conditions and situations where there is increased potential for accidental, large-scale or prolonged exposure.

Hygienic Practices: Avoid contact with eyes, skin and clothing. If irritation occurs, flush thoroughly with water after direct contact.
Engineering Controls: Use general ventilation to minimize exposure to vapor or mist. Eyewash station is suggested.
Personal Protective Equipment: None required by OSHA or NIOSH; however, to prevent irritation, wear safety glasses and use gloves if in direct contact with liquid for prolonged periods.

SECTION 9 -- PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Boiling Point	Not established
Odor	Practically odorless	Freezing Point	Not established
pH	2	Evaporation Rate (Butyl Acetate=1)	Not established
Specific Gravity (H₂O=1)	1	Vapor Density (Air=1)	Not established
Solubility	Water soluble	Vapor Pressure (mmHg)	Not established
VOC Content (% Wt.)	0.00% (0.000 lbs/gallon)		

SECTION 10 -- STABILITY AND REACTIVITY

Chemical Stability:	Stable
Incompatibility:	Bases, such as bicarbonates, carbonates, hydroxides, ammonia and other amines. May be slightly incompatible with aluminum and copper metals after prolonged exposure. Product is compatible with most metals including stainless steels.
Hazardous Decomposition:	None
Polymerization:	None
Conditions to Avoid:	Not applicable

SECTION 11 -- TOXICOLOGICAL INFORMATION

THIS PRODUCT DOES NOT CONTAIN ANY KNOWN OR ANTICIPATED CARCINOGENS ACCORDING TO THE CRITERIA OF THE NTP ANNUAL REPORT ON CARCINOGENS AND OSHA 29 CFR 1910.1000, Subpart Z.

Acute Oral, Rat	LD50>5000 mg/Kg	Epidemiology	N/A
Acute Dermal, Rat	LD50>5000 mg/Kg	Teratogenicity	N/A
Primary Eye Irritation	rabbit - Category IV	Neurotoxicity	N/A
Primary Eye Irritation	rabbit - Slightly irritating	Dermal Sensitization	Guinea Pigs - Not a contact sensitizer
EPA Toxicity Rating	Category IV	Subchronic/Chronic Toxicity:	Does not contain any recognized carcinogens, mutagens or reproductive toxicants.

SECTION 12 -- ECOLOGICAL INFORMATION

Ecotoxicity:	None
Environmental Fate:	Readily degraded. Ionic silver is degraded into inert elemental silver in the environment.

SECTION 13 -- DISPOSAL CONSIDERATIONS

Waste Disposal Method:	Dispose of in accordance with local, state, and federal regulations.
RCRA Classification:	Non-hazardous if diluted and TCLP testing confirms waste does not exhibit the characteristic of toxicity as defined by 40 CFR261.24 for silver content.

SECTION 14 -- TRANSPORT INFORMATION

DOT Classification:	Non-hazardous
Exceptions:	None
Description:	Not applicable

SECTION 15 -- REGULATORY INFORMATION

TSCA: Health and Safety Reporting List: None of the chemicals are on the Health & Safety Reporting List. Chemical Test Rules: None of the chemicals are under a Chemical Test Rule. Section 12b: None of the chemicals are listed under TSCA 12b. TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

CERCLA: No RQ is assigned to the generic or broad class - silver compounds. See 50FR13456 (April 4, 1985).

ARA 302/304: None of the chemicals in this product have an RQ or TPQ.

SARA 311/312: Not reportable

Clean Air Act: This material does not contain any hazardous air pollutants, Class 1 Ozone depletors, or Class 2 Ozone depletors.

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA, Priority Pollutants under the CWA, or Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered hazardous by OSHA.

California Proposition 65: No ingredients listed.

SECTION 16 -- OTHER INFORMATION

ID:		Revision Summary: This updated MSDS includes changes to Sections 1, - 5, 7 -15
Issue Date (Rev):	2/17/10	