



Gold Plating Services SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product Name: Silver Non Cyanide Plating Solution/Silver Non Cyanide Pen Plating Solution

Product Code: SilverNC

Recommended use: Electroplating bath component; for industrial use only.

Supplier:

Gold Plating Services
378 North Main St #112
Layton, Utah 84041

Current SDS preparation date: January 15, 2022

Original SDS preparation date: January 7, 2014

Telephone no: 801-546-6200

Emergency no: P.E.R.S. In US #: (800) 633-8253 Outside US #: 1 (801) 629-0667

SECTION 2. HAZARD IDENTIFICATION

Classification:

Oxidizing Liquids, Category 2
Eye Damage/Irritation, Category 2A
Acute Aquatic Toxicity, Category 1
Chronic Aquatic Toxicity, Category 1

Label elements and precautionary statements:

Signal word: Danger

Pictogram(s):



Hazards not otherwise classified: None

Hazard statement(s):

May intensify fire; oxidizer
Causes serious eye irritation
Very toxic to aquatic life with long lasting effects

Precautionary statement(s):

Keep away from heat, sparks, open flames and hot surfaces. No smoking.
Keep away from clothing and other combustible materials.
Take any precautions to avoid mixing with combustible materials.
Wash hands thoroughly after handling.
Avoid release to the environment.
Wear protective gloves, clothing and eye and face protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

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In case of fire: Use water to extinguish.
Collect spillage.

Dispose of contents and container in accordance with local, state and federal regulations.

SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical name	CAS Number	EINECS Number	Concentration
Silver nitrate	7761-88-8	231-853-9	4%

The chemical identity and concentration of one or more ingredients of this product are withheld as a trade secret under the provisions of paragraph (i) of 29 CFR 1910.1200. This information will be made available to health professionals and others in accordance with the applicable provisions of this paragraph.

SECTION 4. FIRST AID MEASURES

Inhalation:

Remove patient to fresh air. Support breathing if required. Obtain medical treatment for dizziness, unconsciousness or irritation or difficulty in breathing.

Skin contact:

Remove contaminated clothing and wash affected area thoroughly with soap and water. Launder clothing before rewearing. Seek medical attention for prolonged skin irritation.

Eye contact:

Flush with water, including under lids, for fifteen minutes. Obtain immediate medical attention.

Ingestion:

If patient is conscious, rinse mouth and drink at least two large glasses of water. DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain immediate medical attention.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use media appropriate for surrounding fire such as foam, extinguishing powder, carbon dioxide or water spray. In case of fire, cool endangered containers with water spray.

Unsuitable extinguishing media: High pressure water jet.

Specific hazards in case of fire: None reported.

Special protective equipment and precaution for fire fighters: For fires in enclosed areas, wear self-contained breathing apparatus and full protective gear. Do not inhale combustion gases.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear appropriate skin, eye and respiratory protection. Do not eat, drink or smoke while cleaning up. Ensure adequate ventilation.

Methods and materials for containment and cleaning up:

Wear appropriate personal protective gear including eye, skin and respiratory protection. Contain spilled material and collect for silver recovery by absorption or other suitable method. Flush spill area with water. Do not allow this material or its rinsings to enter storm or sanitary sewers or other waterways. (See also Section 13).

Environmental precautions:

Prevent spills and rinsings from entering storm or sanitary sewers or other waterways and contact with soil.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with eyes. Avoid prolonged repeated skin contact and breathing mists or vapors. Use in well-ventilated area. Do not empty waste into sanitary drains.

Conditions for safe storage, including incompatibilities:

Store in a cool, dry area. Use with adequate ventilation. Keep container tightly closed when not in use. Store only in the original container.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

<u>Ingredient</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>Other Limits</u>
Silver nitrate	0.01 mg/m ³ (Ag) TWA	0.01 mg/m ³ (Ag)	0.01 mg/m ³ (Ag) NIOSH REL

Appropriate engineering controls:

Use in well-ventilated area with local exhaust.

Respiratory protection:

Wear appropriate, approved respiratory protection when ventilation is inadequate to meet exposure limits.

Eye protection:

Chemical splash goggles or safety glasses with side shields must be worn.

Skin protection:

Wear rubber or neoprene gloves. Wear rubber apron and long sleeves to prevent skin contact. Wash hands thoroughly with soap and water after handling and before eating or smoking.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Color: Clean, pale amber
Odor: None
Odor threshold: Not available
pH: 7.5-9.0
Melting/freezing point: Not determined
Initial boiling point: Not determined
Flash point: Not applicable
Evaporation rate: Not available
Flammability (solid, gas): Not applicable
Upper/lower explosion limits: Non-explosive
Vapor pressure: Not determined
Vapor density: Not determined
Relative density (H₂O = 1) @25 °C: 1.05+/-0.05
Solubility: Completely soluble in water at 20 °C
Partition coefficient octanol/water: Not determined
Auto-ignition temperature: Not applicable
Decomposition temperature: Not available
Viscosity: Similar to water

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Stable, non-reactive when stored and used according to recommendations.
Chemical stability: No decomposition if used according to specifications.
Possibility of hazardous reactions: None are known.
Conditions to avoid: None reported.
Incompatible materials: Strong acids, bases and reducing agents.
Hazardous decomposition products: May release oxides of silver, and nitrogen at high temperatures or when heated to dryness.

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of Exposure and Symptoms

Inhalation: May cause irritation of the respiratory tract.
Ingestion: Causes pain and burning in mouth, blackening of the skin and mucous membranes, nausea, vomiting, diarrhea and possible shock symptoms.
Skin Contact: Causes skin blackening.
Eye Contact: Causes serious eye irritation and skin blackening.

Acute and Chronic Effects from Short- and Long-term Exposure:

See Routes of Exposure and Symptoms above.

Acute Oral Toxicity: LDLo: 800 mg/kg (rabbit, silver nitrate)
LD50: 1157 mg/kg (rat, silver nitrate)

Acute Dermal Toxicity: No applicable information available.

Acute Inhalation Toxicity: No applicable information available.

Acute Eye Irritation: 10 mg, moderate (rabbit, silver nitrate)

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Dermal Irritation: Prolonged or repeated over-exposure may cause a bluish discoloration of the skin, eyes, and mucous membranes. Persons with pre-existing skin disorders or eye problems may be more susceptible to the effects of this material.

Carcinogen Listings:

IARC: No **NTP:** No **OSHA:** No

Reproductive Effects: No applicable information available.

Target Organ Effects: No applicable information available.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity: There are no data reported for this material; however, all silver compounds are highly toxic to aquatic life.

Persistence and degradability: Inorganic compounds of silver are not biodegradable and are persistent in the environment.

Bio-accumulative potential: There are no data reported for this material.

Mobility in soil: Accidental spillage may lead to penetration in the soil and groundwater. Improper handling and disposal of this material will cause environmental damage.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal:

Disposal of this material is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

SECTION 14. TRANSPORT INFORMATION

Classification for shipment by road or rail, sea (IMDG) and air (IATA/ICAO):

UN proper shipping name: Silver Nitrate
UN number: UN1493
Transport hazard class: 5.1
Packing group: II

Marine Pollutant: No

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SECTION 15. REGULATORY INFORMATION

Inventory Status:

All components are on TSCA, EINECS/ELINCS, AICS, and DSL.

U.S. Regulations:

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:

SARA (311/312) HAZARD CATEGORIES:

None Immediate Delayed Fire Reactive Pressure generating

SARA 313: This product contains the following SARA 313 Toxic Release Chemicals.

Chemical Name	CAS Number	Concentration
Silver nitrate	7761-88-8	4%

The following product components are cited on the lists below:

Chemical Name	CAS Number	List Citations
None		California Proposition 65 List

SECTION 16. OTHER INFORMATION

VOC (Volatile Organic Compounds): None

HMIS Ratings:

Health: 2 **Flammability:** 0 **Reactivity:** 0 **Personal Protection:** C

Prepared by: Allan H. Reed

SDS Preparation date: January 7, 2014 **Supersedes previous version:** New SDS.

This SDS contains revisions in the following section(s): Not applicable. New SDS.

The information contained herein is accurate to the best of our knowledge. Gold Plating Services makes no warranty of any kind, express or implied, concerning the safe use of this material in any process or in combination with other substances.

End of Safety Data Sheet