

Section 1: IDENTIFICATION

Product Name : **Silver**

Formula : **Proprietary**

Manufacturer : **Velocity Chrome, LLC**
13130 56th Court Suite 609
Clearwater, FL 33760
United States of America

24-Hour Emergency Response Information : CHEMTEL DOMESTIC **800-255-3924**
CHEMTEL INTERNATIONAL **813-248-0585**
Product Information **800-603-4343**

Section 2: HAZARDS IDENTIFICATION**Classification:**

Skin Corrosion/Irritation, Category 2
Eye Damage/Irritation, Category 2A
Chronic Aquatic Toxicity, Category 1

Label elements and precautionary statements:

Signal word: Warning

Pictogram(s):

Hazards not otherwise classified: None

Hazard statement(s):

Causes skin irritation
Causes serious eye irritation
Very toxic to aquatic life with long lasting effects

Precautionary statement(s):

Wash hands thoroughly after handling.
Wear protective gloves, clothing and eye and face protection.
If on skin: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.
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.
Take off contaminated clothing and wash it before reuse.

Avoid release to the environment.
Collect spillage.
Dispose of contents and container in accordance with local, state and federal regulations.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS Number	EINECS Number	Concentration
Silver nitrate	7761-88-8	231-853-9	8%
Ammonium hydroxide	1336-21-6	215-647-6	3%

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: May release toxic fumes when heated.

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 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/PERSONAL PROTECTION**Exposure Limits:**

Ingredient	ACGIH TLV	OSHA PEL	Other Limits
Silver Nitrate	0.01 mg/m ³ (Ag) TWA	0.01 mg/m ³ (Ag)	0.01 mg/m ³ (Ag) NIOSH REL
Ammonium hydroxide	25 ppm (NH ₃) TWA 35 ppm (NH ₃) STEL	50 ppm (NH ₃)	25 ppm (NH ₃) TWA 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: Clear, colorless
Odor: Ammoniacal
Odor threshold: Not available
pH: 9.5+/-0.5
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: 1.10+/-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 oxidizers.
Hazardous decomposition products: Releases ammonia and oxides of silver and nitrogen and other toxic fumes at high pH and when heated to dryness.

Section 11: TOXICOLOGICAL INFORMATION**Routes of Exposure and Symptoms**

Inhalation: Vapor and mist will cause irritation of nasal and respiratory passages.

Ingestion: May cause irritation, nausea, vomiting and diarrhea. Large amounts may cause systemic poisoning.

Skin Contact: Skin contact causes mild irritation.

Eye Contact: Causes irritation and burning.

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

See Routes of Exposure and Symptoms above.

Acute Oral Toxicity: LD50: 1173 mg/kg (rat, silver nitrate)
LD50: 350 mg/kg (rat, ammonium hydroxide)

Acute Dermal Toxicity: No applicable information available.

Acute Inhalation Toxicity: No applicable information available.

Acute Eye Irritation: 1 mg, severe (rabbit, silver nitrate)
0.75 mg, severe (rabbit, ammonium hydroxide)

Dermal Irritation: Prolonged exposure can lead to argyria, a generalized grayish pigmentation of the skin and mucous membranes. Such symptoms usually occur after at least two years of exposure. There are no systemic effects, other symptoms or physical disabilities known to be associated with this condition.

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: LC50: 0.006 mg/l, 96 hours (Rainbow trout, silver nitrate)
LC50: 32 mg/l, 50 hours (Daphnia magna, ammonium hydroxide)
LC50: 0.0006 mg/l, 48 hours (Daphnia magna, silver nitrate)

Persistence and degradability: There are no data reported for this material; however, this product is harmful to aquatic life.

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

Mobility in soil: There are no data reported for this material; however, accidental spillage may lead to penetration in the soil and groundwater. Improper handling and disposal of this material may 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 number: UN3082

UN proper shipping name: Environmentally Hazardous Substances, Liquid, N.O.S.
(Contains Silver Nitrate and Ammonium Hydroxide)

Transport hazard class: 9

Packing group: III

Marine Pollutant: No

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	8%

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

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Organization that prepared the MSDS : Velocity Chrome, LLC

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation, and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. Products are intended for professional use only by applicators with proper knowledge and training.

End of Safety Data Sheet