

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Silver Nitrate Solution, 10%

**SYNONYMS:** Silver nitrate solution

**CATALOG CODES:** VSN-101

**MANUFACTURER:** Volu-Sol

**ADDRESS:** 5095 West 2100 South  
Salt Lake City, UT 84120

**EMERGENCY PHONE:** (800) 535-5053

**OTHER CALLS:** (801) 974-9474

**FAX:** (801) 974-9553

**CHEMICAL FAMILY:** -

**CHEMICAL FORMULA:** -

**PREPARED BY:** Volu-Sol

**RECOMMENDED USE:** Laboratory chemicals

**RESTRICTIONS ON USE:** Use as recommended

## SECTION 2: HAZARD(S) IDENTIFICATION

## EMERGENCY OVERVIEW:

**GHS Classification:**

Skin irritation	(Category 2)
Eye irritation	(Category 2A)
Acute aquatic toxicity	(Category 1)
Chronic aquatic toxicity	(Category 1)

## GHS LABEL ELEMENTS:

**Pictogram:**



**Signal Word:**

Warning

## Hazard Statement(s):

H315 Causes skin irritation

H319 Causes serious eye irritation

H410 Very toxic to aquatic life with long lasting effects

## Precautionary Statement(s):

P264 Wash skin thoroughly after handling

P273 Avoid release to the environment

P280 Wear protective gloves/eye protection/ face protection

P302+P352 IF ON SKIN: Wash with plenty of soap and water

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P321 Specific treatment (see supplemental first aid instructions on this label)

P332+P313 If skin irritation occurs: Get medical advice/ attention

P337+P313 If eye irritation persists: Get medical advice/ attention

P362 Take off contaminated clothing and wash before reuse

P391 Collect spillage

P501 Dispose of contents/ container to an approved waste disposal plant

**OTHER HAZARDS:** None

## HMIS Classification:

**Health hazard:** 3

**Chronic health hazard:** -

**Flammability:** 0

**Physical hazards:** 3

## NFPA Rating:

**Health hazard:** 3

**Fire:** 0

**Reactivity Hazard:** 0

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO. EC-NO. Index-NO.
Silver nitrate (5-10%)	7761-88-8 231-853-9 047-001-00-2

## SECTION 4: FIRST AID MEASURES

**INHALATION:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician

**INGESTION:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

**SKIN:** Wash off with soap and plenty of water. Consult a physician

**EYE:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital

## SECTION 5: FIRE-FIGHTING MEASURES

**FLAMMABLE LIMITS IN AIR:**

**Percentage by Volume**

Upper: %

Lower: %

**FLASH POINT:** -

**AUTOIGNITION TEMPERATURE:** -

**EXTINGUISHING MEDIA:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**FIRE FIGHTING PROCEDURES:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode

**FIRE AND EXPLOSION HAZARDS:** No data available

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**ACCIDENTAL RELEASE MEASURES:** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal

## SECTION 7: HANDLING AND STORAGE

**HANDLING AND STORAGE:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature 2 - 8 °C. Light sensitive. Store under inert gas.

**INCOMPATIBILITIES:** Magnesium, Strong bases, Strong reducing agents

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**EXPOSURE LIMITS:** Reported in a time-weighted average (TWA)

Component	CAS-No.	OSHA		ACGIH	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Silver nitrate	7761-88-8		0.01 PEL		0.01 TLV

**VENTILATION SYSTEM:** Local and/or general exhaust is recommended to keep exposure below limits. Local exhaust ventilation is preferred for control of the emissions at its source, preventing dispersion into the general work area. Please refer to the ACGIH document, *Industrial Ventilation: A Manual of Recommended Practices*, for details

**PERSONAL RESPIRATORS:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**SKIN PROTECTION:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**EYE PROTECTION:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE:** liquid  
**ODOR:** -  
**SOLUBILITY:** -  
**pH:** -  
**BOILING POINT:** -  
**MELTING POINT:** -  
**VAPOR PRESSURE:** -  
**DENSITY:** -  
**VISCOSITY:** -  
**REFRACTIVE INDEX:** -

**SECTION 10: STABILITY AND REACTIVITY**

**CHEMICAL STABILITY:** Stable under recommended conditions of use and storage

**CONDITIONS TO AVOID:** No data available

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** No data available

**SECTION 11: TOXICOLOGICAL INFORMATION****TOXICOLOGICAL INFORMATION:**

**Acute Toxicity:** No data available

**Skin/Eye Irritation:** No data available

**Carcinogenicity:**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by IARC.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by OSHA.

**SECTION 12: ECOLOGICAL INFORMATION**

**ECOLOGICAL INFORMATION:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life

**Toxicity:** No data available

**Persistence and degradability:** No data available

**Mobility in soil:** No data available

**PBT/vPvB Results:** No data available

**SECTION 13: DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL METHOD:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of as unused product

**SECTION 14: TRANSPORT INFORMATION**

US DOT	IATA	IMDG/IMO
Shipping Name: Not dangerous goods	Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Silver nitrate)	Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Silver nitrate)
Hazard Class: Not dangerous goods	Hazard Class: 9	Hazard Class: 9
UN Number: Not dangerous goods	UN Number: 3082	UN Number: 3082
Packing Group: Not dangerous goods	Packing Group: III	Packing Group: III

**SECTION 15: REGULATORY INFORMATION**

<b>SARA 302</b>	-
<b>SARA 313</b>	7761-88-8
<b>SARA 311/312 Hazards</b>	Acute Health Hazard
<b>State</b>	Right to know lists: MA: 7761-88-8 PA: 7732-18-5, 7761-88-8 NJ: 7732-18-5, 7761-88-8 California Prop. 65 Components:

**SECTION 16: OTHER INFORMATION**

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