

CHAITANYA CHS, 2<sup>nd</sup> FLOOR, OFFICE # 206, SIDDHARTH NAGAR, S.V.ROAD, GOREGAON (W), MUMBAI 400062, MH, INDIA.  
CONTACT: +9122 28725393 /94/ 95 | EMAILID: CARE@SUVCHEM.COM

**MATERIAL SAFETY DATA SHEET (MSDS)****SILVER NITRATE LR (CRYSTALS)****1. Product Identification**

**Synonyms:** Lunar caustic; silver nitrate toughened; Nitric Acid, Silver (I) Salt  
**CAS No.:** 7761-88-8

Product Coad: S0183200025

**Molecular Weight:** 169.87  
**Chemical Formula:** AgNO<sub>3</sub>  
**Product Codes:** SUVCHEM S 01832

**2. Composition/Information on Ingredients**

Ingredient	CAS No	Percent	Hazardous
Silver Nitrate	7761-88-8	99 - 100%	Yes

**3. Hazards Identification****Emergency Overview****4. First Aid Measures**

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.  
**Ingestion:** If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.  
**Skin Contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.  
**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**5. Fire Fighting Measures**

**Fire:** This oxidizing material can increase the flammability of adjacent combustible materials.  
**Explosion:** Many reactions may cause explosion. Reacts with ammonia to form compounds that are sensitive to mechanical shock.  
**Fire Extinguishing Media:** Use flooding amounts of water. Do not use dry chemical, carbon dioxide or Halon. Do not allow water runoff to enter sewers or waterways.

**6. Accidental Release Measures**

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

**7. Handling and Storage**

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage and moisture. Isolate from any source of heat or ignition. Avoid storage on wood floors. Separate from incompatibles, combustibles, organic or other readily oxidizable materials. Protect from light. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

**8. Exposure Controls/Personal Protection**

**Airborne Exposure Limits:** -OSHA Permissible Exposure Limit (PEL):

0.01 mg/m<sup>3</sup> (TWA) for silver metal dust and fume as Ag

-ACGIH Threshold Limit Value (TLV):

0.01 mg /m<sup>3</sup> (TWA) for soluble silver compounds as Ag

**Ventilation System:** A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):** If the exposure limit is exceeded and engineering controls are not feasible, a full facepiece particulate respirator (NIOSH type N100 filters) may be worn for up to 50 times the exposure limit or the maximum use concentration specified by the appropriate

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regulatory agency or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.  
**Eye Protection:** Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

#### 9. Physical and Chemical Properties

**Appearance:** White crystals.  
**Odor:** Odorless.  
**Solubility:** 219g/100g water @ 20C (68F).  
**Specific Gravity:** 4.352  
**pH:** ca. 6 (neutral to litmus)  
**% Volatiles by volume @ 21C (70F):** 0  
**Boiling Point:** 444C (831F) Decomposes.  
**Melting Point:** 212C (414F)  
**Vapor Density (Air=1):** 4.4  
**Vapor Pressure (mm Hg):** Very low.

#### 10. Stability and Reactivity

**Stability:** Stable at room temperature in sealed containers. Discolors on exposure to light.  
**Hazardous Decomposition Products:** Oxides of nitrogen.  
**Hazardous Polymerization:** Will not occur.  
**Incompatibilities:** Ammonia, alkalis, antimony salts, arsenites, bromides, carbonates, chlorides, iodides, thiocyanates, ferrous salts, phosphates, tannic acid and tartrates.  
**Conditions to Avoid:** Heat, flame, sources of ignition, light and incompatibles.

#### 11. Toxicological Information

Oral rat LD50: 1173 mg/kg. Irritation data, rabbit, std Draize: eye= 1 mg, severe. Investigated as a tumorigen, mutagen, reproductive effector.

---NTP Carcinogen---

Ingredient	Known	Anticipated	IARC Category
Silver Nitrate (7761-88-8)	No	No	None

#### 12. Ecological Information

**Environmental Fate:** No information found.  
**Environmental Toxicity:** No information found.

#### 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

#### 14. Transport Information

**Domestic (Land, D.O.T.)**

**Proper Shipping Name:** RQ, SILVER NITRATE  
**Hazard Class:** 5.1  
**UN/NA:** UN1493  
**Packing Group:** II  
**Information reported for product/size:** 80OZ

**International (Water, I.M.O.)**

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**SILVER NITRATE LR (CRYSTALS)**
**Proper Shipping Name:** SILVER NITRATE

**Hazard Class:** 5.1

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**15. Regulatory Information**

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
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Silver Nitrate (7761-88-8)	Yes	Yes	Yes	Yes
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-----\Chemical Inventory Status - Part 2\-----

--Canada--

Ingredient	Korea	DSL	NDSL	Phil.
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Silver Nitrate (7761-88-8)	Yes	Yes	No	Yes
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-----\Federal, State &amp; International Regulations - Part 1\-----

-SARA 302- -----SARA 313-----

Ingredient	RQ	TPQ	List	Chemical Catg.
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Silver Nitrate (7761-88-8)	No	No	No	Sliver compd/
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-----\Federal, State &amp; International Regulations - Part 2\-----

-RCRA- -TSCA-

Ingredient	CERCLA	261.33	8(d)
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Silver Nitrate (7761-88-8)	1	No	No
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Chemical Weapons Convention: No TSCA 12(b): No CDTA: No

SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No

Reactivity: Yes (Pure / Solid)

**16. Other Information**
**NFPA Ratings:** Health: 4 Flammability: 0 Reactivity: 0 Other: **Oxidizer**
**Label Hazard Warning:** POISON! DANGER! CORROSIVE. CAUSES BURNS TO ANY AREA OF CONTACT. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.

**Label Precautions:** Keep from contact with clothing and other combustible materials.

Do not get in eyes, on skin, or on clothing.

Do not breathe dust.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

Store in a tightly closed container.

Do not store near combustible materials.

**Label First Aid:** If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In all cases get medical attention immediately.

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**Product Use:** Laboratory Reagent.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

**DISCLAIMER:**

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

**End of document**