

## 1 - Product Identification

**Synonyms:** Nitric Silver Salt, Lunar Caustic

**CAS:** 7761-88-8

**Formula Weight:** 169.87 (63.5% Silver metal by weight)

**Chemical Formula:** AgNO<sub>3</sub>

**Reportable Quantity:** 50, 125, 455, 1000 grams

**Supplier:** Lessit Komet Chemi; [www.silvernitrate.org](http://www.silvernitrate.org) 1(318)480-0084

**Distributed by:** Thesetmaster Fulfillment LLC, P.O.Box 286165, Chicago IL 60628

**Emergency Tel.#** CHEMTREC, USA: 800-424-9300

## 2 - Hazards

**Health Rating:** Skin Irritation Cat.1, Serious Eye damage Cat.1

**Target Organs:** Respiratory System Cat.3, Liver and Kidney Cat.2

**Oxidizer:** Solids Cat.2, Corrosive to metals Cat.1

**Labeling:**

**Signal Word:** Warning

**Hazard Statement:** Can intensify fire



**Lab Protective Equip:** Safety goggles and/or face shield and mask, Nitrile gloves, Good ventilation.

**Storage Color Code:** Yellow (Reactive), Keep container tightly closed

## 3 - Composition

**Silver Nitrate:** 99.9% min..

**Moisture:** relative

## 4 - First Aid Measures

**Inhalation:** Remove to fresh air. Crystals will sting the nasal passages. Get medical attention as soon as possible.

**Ingestion:** If swallowed, Do not induce vomiting. Give a quantity of milk or water containing table salt water. Get medical attention immediately if the quantity ingested is more than a gram.

**Skin Contact:** Wash immediately with soap and water for at least 15 minutes. Stains on skin usually vanish within a week. Stains on finger nails can be buffed away.

**Eye Contact:** Immediately flush eyes with plenty of water for at least 20 minutes. Tears will cause a film to form on the eye. Get medical attention immediately.

## 5 - Fire Fighting Measures

**Fire:** Use an extinguishing agent suitable for surrounding fires.

**Heating:** Wear SCBA (self-contained breathing apparatus) and protective gear as decomposition products are toxic and corrosive.

**Incompatible:** Organic Substances, Reducing Agents, Many Metals and Combustible Material.

**Explosion:** Reaction with ammonia will form explosive Fulminating Silver.

## 6 - Accidental Release Measures

Wear protective equipment. Clean up in a way that doesn't disperse the crystals into the air. If it is released into water, add table salt.

**Special Note:** Disposal of even small quantities of silver nitrate in waste systems connected to a septic tank is will to destroy septic enzymes which would require, flushing out and seeding with fresh enzymes.

## 7 - Handling and Storage

Wear protective equipment, nitrile gloves, goggles, and protect clothing from accidental spills.

Do not store near combustible materials.

Store in a closed container, keep in a dark and damp-free ventilated area.

Silver Nitrate is not light sensitive although impurities in air will make cause sensitivity to light. Pure Silver Nitrate does not absorb moisture.

## 8 - Exposure Limits; Airborne

OSHA Permissible Exposure Limit (PEL): 0.01 mg/m<sup>3</sup> (TWA) as silver metal dust

ACGIH Threshold Limit Value (TLV): 0.01 mg /m<sup>3</sup> (TWA) as soluble silver compounds

NIOSH IDLH 10mg/m<sup>3</sup>

## 9 - Physical and Chemical Properties

**Appearance:** Transparent white colored crystals.

**Odor:** Odorless.

**Solubility:** 2190g/1000ml water @ 20°C (70°F).

**Specific Gravity:** 4.35g/cc

**pH:** ~6

**Boiling Point:** 441°C (824°F) Decomposes.

**Melting Point:** 212°C (414°F) .

**Vapor Density (Air=1):** 4.4

**Vapor Pressure (mm Hg):** Not available.

## 10 - Stability and Reactivity

**Stability:** Stable at room temperature in sealed containers.

**Hazardous Decomposition Products:** Oxides of nitrogen.

**Incompatibilities:** Ammonia, reducing agents, alkali and alkaline metals

**Conditions to Avoid:** Do not allow solutions of Silver Nitrate and Ammonia to mix.

## 11 - Toxicological Information

CAS# 7761-88-8: Oral, mouse: LD50 = 50mg/kg

## 14 -Transport Information

**Domestic** (Land, DOT)

**Hazard Class:** 5.1

**Packing Group:** II

**UN number:** UN1493

**ORM-D:** USPS can ship within United States only.

**ORM-D Packaging instruction 5A:** Consumer Commodity ORM-D AIR - the weight of the contents of the primary packing container cannot exceed 1 kg. USPS publication 52, Appendix C, 1999 page 291.

**Outer Packaging:** A strong outer packaging that is capable of firmly and securely holding the primary receptacle and cushioning material is required.

**Mailability:**

International Mail: Prohibited.

Domestic Mail: Permitted via air or surface transportation.

## 16 – Additional Information

MSDS Creation Date: 4/05/1997 Simplified version from the original MSDS Latest revision: 1/17/2023. Updated (GHS) conformity.

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