

MSDS - Silver Nitrate

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: AgNO₃

Reportable Quantity: 40, 100, 455 grams

Supplier: Lessit Komet Chemi; www.silvernitrate.org 1(318)480-0084

Distributed by: Thesetmaster Fulfillment LLC, P.O.Box 437128, Chicago IL 60643

2 - Composition

Silver Nitrate: 99.9% min..

Moisture: relative

3 - Hazards [NFPA 704](#)

Health Rating: 3 – Elevated, causes eye and skin burns. Even small amounts will stain skin, Inhalation will cause burns to the upper respiratory track.

Flammability Rating: 0 - None

Reactivity Rating: 0 - Normally stable, even under fire exposure conditions, reactive with water.

Lab Protective Equip: Safety goggles and/or face shield. Latex gloves. Good ventilation.

Storage Color Code: Yellow (Reactive)

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 usually vanish within a week. Stains on finger nails can be buffed away.

Eye Contact: Get medical attention immediately. Immediately flush eyes with plenty of distilled water for at least 30 minutes. Tears will cause a film to form on the eye.

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.

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 gear, latex 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/m³ (TWA) as silver metal dust
ACGIH Threshold Limit Value (**TLV**): 0.01 mg /m³ (TWA) as soluble silver compounds

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: 11/22/2014.

Disclaimer: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company(s) or Thesetmaster Fulfillment LLC be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.