

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 53555, Chicago IL 60653

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 well-ventilated area.

Silver Nitrate is not light sensitive al though impurities in the 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 Revision Date: 12/18/2012. The full MSDS is available for download on <http://www.gholar.com/msds.html>

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