

Material Safety Data Sheet / Safety Data sheet

Silver Nitrate

Section 1: Chemical Product Identifier and Synonyms

Product Name: Silver Nitrate

UN Number: 1493

CAS Number: 7761-88-8

Synonym: Silver (I) Nitrate, Nitric acid silver(1+) salt and Lapis infernalis

Chemical Formula: AgNO₃

Section 2: Composition and Information on Ingredients

Composition

Name	CAS Number:	% By Weight
Silver Nitrate	7761-88-8	99.99%

Toxicology Data On Ingredients: LD50: Not Available. LC50: Not Available

Section 3: Hazards Identification

Potential Acute Health Effects:

Routes of Exposure: Inhalation, ingestion, skin contact, eye contact

Inhalation: Corrosive. May cause damage to mucus membranes and respiratory tract.

Ingestion: Corrosive. Harmful if swallowed. May cause burns to the lips, oral cavity, esophagus, and/or digestive tract.

Skin Contact: Corrosive. Causes severe skin burns. May discolor skin.

Eye Contact: Corrosive. Causes severe eye burns. May cause permanent eye damage.

Target Organs: Skin, eyes, respiratory tract, blood, liver, kidneys

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.

Corrosive. Prolonged contact causes serious tissue damage. May cause liver and/or kidney

damage. Risk of damage to blood system.

Section 4: First Aid Measures

Eye Contact:

Check for and remove contact lenses. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention.

Skin Contact:

In case of contact, wash skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms persist.

Inhalation:

Remove to fresh air. If breathing is difficult, administer oxygen. If the victim is not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion:

Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Never give anything by mouth to an unconscious person. GET MEDICAL ATTENTION OR CALL POISON CONTROL CENTER IMMEDIATELY.

Section 5: Fire and Explosion Data

Flammability of the Product: This product is non-flammable, but material is a strong oxidizer.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not available.

Explosion Hazards in Presence of Various Substances: Not available.

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Use: Water spray, fog.

Do not use: Dry chemical, carbon dioxide, halon.

As in any fire, wear MSHA/NIOSH approved (or equivalent) self-contained breathing apparatus with full face piece operated in the pressure-demand or other positive pressure mode and full protective gear.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Ventilate area of leak or spill. Eliminate all sources of ignition. Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Keep upwind. Keep out of low areas. Wear appropriate personal protective equipment as specified in the Exposure Control and Personal Protection Section 8. Avoid contact with eyes, skin, and clothing. Avoid inhalation of dusts. Wear a dust mask if dust is generated above exposure limits.

Large Spill:

Keep combustibles away from spilled material. Pick up and place in a suitable noncombustible container for reclamation or disposal, using a method that does not generate dust. Clean contaminated surface thoroughly. Never return spills in original containers for re-use. Clean up in accordance with all applicable regulations.

Section 7: Handling and Storage

Precautions:

Wear personal protective equipment (see section 8). Use only in well-ventilated areas. Provide sufficient air exchange and/or exhaust in work rooms. Wear appropriate respiratory equipment in case of insufficient ventilation. Protect from direct sunlight. Avoid contact with skin, eyes and clothing. Do not breathe dust. Keep formation of airborne dusts to a minimum. Do not ingest. Do not eat, drink, or smoke while handling this product. Do not handle near an open flame, heat, or other sources of ignition. Keep away from incompatible materials such as combustibles, reducing agents, organic materials, metals, acids, moisture. Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquids). Observe all warnings and precautions listed for the product.

Storage:

Store in a cool, dry, ventilated area away from flame, sources of ignition, heat, and incompatible materials. Do not store near combustibles, organic materials, or other oxidizable materials. Keep containers tightly closed and upright. Protect from physical damage. Keep away from food, drink and animal food. Keep out of the reach of children.

Section 8: Exposure Controls / Personal Protection

Engineering Controls:

Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits or to acceptable levels.

Personal Protection:

Safety glasses. Gloves. Protective clothing. Dust production: dust mask with filter.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Crystalline.

Odour: Not available.

Taste: Not available.

Molecular Weight: 169.81 g/mole

Colour: Translucent.

pH (1% soln/water): 6-7

Boiling Point: 440°C (824°F) (Decomposes)

Melting Point: 212°C (414°F)

Critical Temperature: Not available.

Specific Gravity: 4.35 (Water = 1)

Vapour Pressure: Not available.

Vapour Density: 5.8

Volatility: Not available.

Odour Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility: Freely soluble in water.

Section 10: Stability and Reactivity Data

Stability: Product is stable under normal conditions.

Instability Temperature: Not available.

Conditions of Instability: Incompatibles, combustibles, heat, light.

Incompatibility with various substances: Combustible materials, reducing agents (oxidizable substances), organic materials, alkalis, sulfur.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Eye contact. Inhalation. Ingestion.

Toxicity to Animals: Oral Rat LD50: 1173 mg/kg. LC50: Not available.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Not available.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information

Ecotoxicity: Very toxic to aquatic life with long lasting effects.

BOD5 and COD: Not available.

Products of Biodegradation: Not available.

Toxicity of the Products of Biodegradation: Not available.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Information

Waste Disposal: Dispose of in accordance with local regulations

Section 14: Transport Information

DOT Classification: Class:5.1

Identification: Silver Nitrate UN Number:1493 PG: II

Special Provisions for Transport: Not available.

Section 15: Regulatory Information

Regulations: Labelling according to Regulation (EC) No 1272/2008.

Section 16: Other Information

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials. The author will not be held liable for any damage or injury caused by this product and does not obviate the requirement for end

users to carry out their own workplace and specific use risk assessment.

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