



Material Safety Data Sheet Silver Nitrate, 0.01N in Isopropanol

Section 1 - Chemical Product and Company Identification

MSDS Name:

Silver Nitrate, 0.01N in Isopropanol

Catalog Numbers:

LC22745

Synonyms:

None

Company Identification:

LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 – Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
67-63-0	Isopropyl alcohol	balance
7761-88-8	Silver nitrate	0.17

Section 3 - Hazards Identification

Emergency Overview

Appearance: *Clear, colorless solution***Warning!** Flammable liquid. May cause irritation to eyes, skin, respiratory and gastrointestinal tracts. Harmful if inhaled or swallowed. Ingestion may cause methemoglobinemia.**Target Organs:** *Kidneys, central nervous system.*

Potential Health Effects

Eye:

Causes irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury.

Skin:

May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. May cause irritation with pain and stinging, especially if the skin is abraded.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. May cause central nervous system depression, characterized by excitement, followed by headache,



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dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Inhalation:

Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, unconsciousness and coma. Inhalation of vapor may cause respiratory tract irritation.

Chronic:

Prolonged or repeated skin contact may cause defatting and dermatitis. May cause allergic skin reaction in some individuals.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid at once. Do NOT allow victim to rub or keep eyes closed.

Skin:

Get medical aid at once. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:

Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid at once.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Flammable Liquid. May form explosive peroxides. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

810°F (432°C)

Flash Point:

53°F (12°C)

NFPA Rating:

Health- 1, Flammability- 3, Instability- 0.

Explosion Limits:

Lower: 2.5% Upper: 12.1%



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Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Remove all sources of ignition.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage:

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Isopropanol	400 ppm TWA; 980 mg/m ³ TWA	400 ppm TWA; 980 mg/m ³ TWA	400 ppm TWA; 500ppm STEL
Silver nitrate	None listed	None listed	None listed

OSHA Vacated PELs:

Isopropyl alcohol: 400 ppm TWA; 980 mg/m³ TWA

Personal Protective Equipment**Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.



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Section 9 - Physical and Chemical Properties

Physical State:	Liquid
Color:	Colorless
Odor:	Solvent odor
pH:	Not available
Vapor Pressure:	33 mm Hg @20C
Vapor Density:	2.1 (air=1)
Evaporation Rate:	2.3 (n-butyl acetate=1)
Viscosity:	2.1 cP at 77 F
Boiling Point:	181°F (83°C)
Freezing/Melting Point:	-127°F (-88°C)
Decomposition Temperature:	Not available
Solubility in water:	Soluble
Specific Gravity/Density:	0.8 (water=1)
Molecular Formula:	Not available
Molecular Weight:	Not available

Section 10 - Stability and Reactivity

Chemical Stability:

Stable. This material may be sensitive to peroxide formation.

Conditions to Avoid:

Incompatible materials, light, ignition sources.

Incompatibilities with Other Materials:

Halides, reducing agents.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide.

Hazardous Polymerization:

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 67-63-0: NT8050000.

CAS# 7761-88-8: VW4725000.

LD50/LC50:

CAS# 67-63-0:

Oral, mouse: LD50 = 3600 mg/kg

Oral, rabbit: LD50 = 6410 mg/kg

Oral, rat: LD50 = 5045 mg/kg

Skin, rabbit: LD50 = 12800 mg/kg.

CAS# 7761-88-8:

Oral, mouse: LD50 = 50 mg/kg.

Carcinogenicity:

CAS# 67-63-0: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7761-88-8: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.



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Epidemiology:

No information found

Teratogenicity:

No information found

Reproductive:

No information found

Mutagenicity:

No information found

Neurotoxicity:

No information found

Section 12 - Ecological Information

No information found

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Flammable liquid, n.o.s. (Isopropanol)

Hazard Class: 3

UN Number: UN1993

Packing Group: PG II

Section 15 - Regulatory Information

US Federal**TSCA:**

CAS# 67-63-0 is listed on the TSCA Inventory.

CAS# 7761-88-8 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):

CAS# 7761-88-8: final RQ = 1 pound (0.454 kg)

CERCLA/SARA Section 313:

This material contains Isopropyl alcohol (CAS# 67-63-0, 0.17%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous:

None of the chemicals in this product are considered highly hazardous by OSHA.

US State**State Right to Know:**

Isopropyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.



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Silver nitrate can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Massachusetts.

California Regulations:

None

European/International Regulations

Canadian DSL/NDSL:

CAS# 67-63-0 is listed on Canada's DSL List.

CAS# 7761-88-8 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 67-63-0 is listed on Canada's Ingredient Disclosure List.

CAS# 7761-88-8 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: November 15, 1998

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