Section I – Product and Company Identification

Product Name: SILVER NITRATE; AgN-25

Synonyms: LUNAR CAUSTIC; NITRIC ACID; SILVER SALT

Chemicals present: See components below

Recommended use: Professional use

Company Identification:

Chief Medical Supplies Ltd.
411 – 19 Street, S. E.
Calgary, AB., Canada.
T2E 6J7
1.866.620.6034

For information, call: 1-403-207-6034
Emergency Number: 1-613-996-6666

Section II – Hazards Identification

Hazard classification:

Oxidizing solids (Category 2)

Skin Corrosive (Category 1B)

Aquatic Acute (Category 1)

Aquatic Chronic (Category 1)

Signal word:

Danger

Symbol:

Hazard statement:

H272: May intensify fire; oxidizer.

H314: Causes severe skin burns and eye damage.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

P220: Store away from clothing and combustible materials.

P221: Take any precaution to avoid mixing with combustibles.

P260: Do not breathe dust. P264: Wash hands thoroughly after handling.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P310: Immediately call a POISON CENTER or doctor.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P363: Wash contaminated clothing before reuse.

P370+P378: In case of fi re: Use water to extinguish.

P391: Collect spillage.

P405: Store locked up.

H501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Other hazards which do not result in classification: No additional information available.

Label elements: Safety data sheet available on request.

Section III – Composition/Information on Ingredients

Ingredient Name	Chemical Formula	CAS No.	% by weight
Silver Nitrate	$AgNO_3$	7761-88-8	99-100

Section IV – First Aid Measures

First-aid measures:

Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Symptoms and effects:

Inhalation: May be harmful
Skin contact: May causes burns
Eye contact: May causes corneal damage or blindness
Ingestion: May be fatal

Immediate medical attention and special treatment:

Symptoms may not appear immediately. In case of accident or feeling of illness, seek medical advice immediately (show the label or SDS where possible).

Section V – Fire Fighting Measures

Suitable extinguishing media:

Water. CO2 or Halon® may provide limited control.

Unsuitable extinguishing media:

Do not use dry chemicals or foams.

Specific hazards arising from the hazardous product:
During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Substance is a strong oxidizer which releases oxygen on heating. The oxygen will intensify any fire in the immediate surroundings.

Silver nitrate mixed with dry powdered magnesium may ignite explosively on contact with a drop of water. An explosive fulminate may be formed if silver nitrate is mixed with alcohols. Highly explosive is formed by the addition of calcium carbide to silver nitrate solution.

Hazardous combustion products:

Organic materials, combustible materials.

Special protective equipment and precautions for fire-fighters:

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Section VI – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

General measures: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental precautions: Keep undiluted product out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

Methods and materials for containment and cleaning up:

Containment: Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from combustible material. Do not ingest. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Spills: Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section VII – Handling and Storage

Precautions for safe handling: Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for safe storage (including incompatible materials): Store in a cool, dry, well-ventilated area. Keep away from ignition sources. Store in resistant containers. Do not store in wooden, cardboard or paper containers. Store away from flammable and combustible materials.

Section VIII – Exposure Controls/Personal Protection

Control parameters:

Silver Nitrate		
ACGIH (TLV)	**NIOSH (REL)**	**OSHA (PEL)**
TWA: 0.01 mg/m^3	TWA: 0.01 mg/m^3	TWA: 0.01 mg/m^3

Engineering controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures (Personal Protection Equipment):

Eyewear: Splash goggles.

Gloves: Protective gloves.

Clothing: Lab coat.

Respiratory protection: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section IX – Physical and Chemical Properties

Physical state:	Solid
Appearance:	White Crystal
Odour:	None
Odour threshold:	No data available
pH:	6 - 7
Melting point/Freezing point:	No data available
Initial boiling point/boiling range:	No data available
Flash point:	212°C (413.6°F)
Evaporation rate:	No data available
Flammability (solid; gas):	Not flammable
Lower flammable/explosive limit:	No data available
Upper flammable/explosive limit:	No data available
Vapour pressure:	No data available
Vapour density:	5.8
Relative density:	4.35

Solubility:	+/- 10% in water
Partition coefficient:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	444°C (831°F)
Viscosity:	No data available

Section X – Stability and Reactivity

Reactivity:

Nonreactive in normal condition. Sensitive to light. Incompatible with antimony salts, arsenites, bromides, carbonates, chloarides, iodides, thiocyanates, ferrous salts, hypophosphites, morphine salts, oils, creosote, phosphates, tannic acid, tartrates, vegetable decoctions, and extracts, sodium hydroxide, charcoal, thimerosal, benzalkonium chloride, halogenated acids and their salts, alcohols. Silver nitrate reacts with acetylene in presence of ammonia to form silver acetylide, a sensitive powerful detonator when dry. Reaction between silver nitrate and chlorosulfonic acid is violent. Silver nitrate is reduced by hydrogen sulfide in the dark. Silver nitrate is easily reduces to metallic silver by ferrous salts, arsenites, hypophosphites, tartrates, sugars, tannins, volatile oils.

Chemical stability:

Stable in normal condition.

Possibility of hazardous reactions:

Oxidizer: Contact with combustible/organic material may cause fire. Light sensitive.

Conditions to avoid: Incompatible products. Excess heat. Combustible material. Avoid dust formation. Protect from light.

Incompatible materials: Lithium metal, Bromine trifloride, strong oxidizers, sulfuric acid, strong bases. Bases and corrosive to metals.

Hazardous decomposition products: Nitrogen Oxides (NOx).

Hazardous polymerization: Will not occur.

Section XI – Toxicological Information

Route of exposure:

Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Symptoms related to the physical, chemical and toxicological characteristics:

Skin: Causes severe irritation and burns. It may cause dermatitis. It may be absorbed through the skin.

Eyes: Causes severe irritation, corneal opacification, bleeding conjunctiva, burns of conjunctiva, argyria, blindness.

Inhalation: Causes irritaiton of the respiratory tract and mucous membranes with possible chemical burns. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting.

Ingestion: Severe gastrointestinal tract irritation and burns, pain and burning in the mouth, violent abdominal pain, argryia -grayish/blackening of skin and mucous membranes, throat and abdomen, salivation, vomiting of black material, diarrhea, hypermotility, ulcerative gingivitis . May affect kidneys (lesions of kidneys, anuria), lungs.

Effects of chronic exposure:

Causes damage to the following organs: lungs.

May cause damage to the following organs: mucous membranes, skin, eyes.

Acute toxicity:

ACUTE ANIMAL TOXICITY DATA:	
Chemical Substance	Oral LD50 (mg/kg)
Silver Nitrate	1173mg/kg [Rat] 50mg/kg [Mouse]

Carcinogenicity: CAS# 7761-88-8: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Reproductive toxicity: Not available.

Teratogenicity: Not available.

Mutagenicity: Mutagenic effects have occurred in humans.

Toxicologically synergistic products: Not available.

Section XII – Ecological Information

Ecotoxicity: No additional information available.

Persistence and degradability: No additional information available.

Bioaccumulative potential: No additional information available.

Mobility in soil: No additional information available.

Other adverse effects: No additional information available.

Section XIII – Disposal Considerations

Waste disposal: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

Section XIV – Transport Information

UN number: UN1493

UN proper shipping name: Silver Nitrate

Transport hazard class(es): 5.1

Packing group: II

Reportable Quantity: > 1 lbs (0.454 kg)

Marine pollutant: No

Environmental hazards: Dangerous for the environment.

Exceptions: Limited quantity equal to or less than 0.453 Kg

Special shipping information: Not applicable

Section XV – Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Section XVI – Other Information

SDS creation date: Jun 15, 2011 **Last revision date:** May 30, 2019

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 event shall Chief Medical Supplies 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 Chief Medical Supplies has been advised of the possibility of such damages.

This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR