



# SAFETY DATA SHEET

**Revision Date: 11/16/2015** Revision Number: G2 Preparation Date: 07/09/2015

1. IDENTIFICATION

**Product identifier** 

Product code: S1086

**Product Name:** SILVER NITRATE, TECHNICAL

Other means of identification

Argenti nitras Synonyms:

Argerol

Lunar caustic

Nitrate d'argent [French] Nitrato de plata [Spanish] Nitric acid silver(I) salt Nitric acid, silver(1+) salt

Silbernitrat

Silver mononitrate

UN1493

CAS #: 7761-88-8 RTECS# VW4725000 CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: In photography, Manufacture of mirrors; other silver salts; silver plating; in

sympathetic and indelible inks; dyeing hair; coloring porcelain; etching ivory;

chemical intermediate for silver halides-eq, silver bromide and chloride, silver oxide

and silver cyanide; catalyst-eg, for conversion of methanol to formaldehyde;

analytical reagent in volhard titration; static inhibitor for carpets and woven materials; absorber of iodine; waste fission product; water disinfectant in poolls; color restorer in metallic hair dyes; agent in manufacter of electronic pastes used in inks; chemical intermediate for silver aluminosilicates; in pencils or cones molded with potassium nitrate; catalyst for ethylene oxide; germicide; fused form to cauterize wounds; strong oxidizing agent; as a bacteriostat to destroy animal pathogenic bacteria; medication;

pharmaceutical use for preparation of other therapeutic silver salts.

Uses advised against No information available

Spectrum Chemical Mfg. Corp Supplier:

14422 South San Pedro St.

Gardena, CA 90248 (310) 516-8000

**Order Online At:** https://www.spectrumchemical.com

**Emergency telephone number** 

Chemtrec 1-800-424-9300 **Contact Person:** Martin LaBenz (West Coast) **Contact Person:** Ibad Tirmiz (East Coast)

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# 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1Sub-category B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (repeated exposure)	Category 1
Oxidizing solids	Category 2

#### Label elements

#### Danger

#### Hazard statements

Harmful if swallowed

Causes severe skin burns and eye damage Causes damage to organs through prolonged or repeated exposure

May intensify fire; oxidizer



#### Hazards not otherwise classified (HNOC)

Not Applicable

#### Other hazards

Not available

#### **Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not breathe dust/fume/gas/mist/vapors/spray

Wear protective gloves/protective clothing/eye protection/face protection

Keep away from heat/sparks/open flames/hot surfaces. — No smoking

Keep/Store away from clothing/ .? /combustible materials

Take any precaution to avoid mixing with combustibles .?

Product code: S1086 Product name: SILVER NITRATE, 2/15

#### **Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician

Specific treatment (see .? on this label)

IN CASE OF FIRE: Use water to extinguish. Do not use dry chemicals or foams. CO₂or Halon may provide limited control.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Do NOT induce vomiting

#### **Precautionary Statements - Storage**

Store locked up

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Silver Nitrate	7761-88-8	100	*
7761-88-8			

#### 4. FIRST AID MEASURES

First aid measures

**General Advice:** Poison information centers in each State capital city can provide additional

assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**Skin Contact:** Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for

at least 15 minutes. Remove and wash contaminated clothing before re-use. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

Eye Contact: Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician

immediately.

**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth

resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Immediate

medical attention is required.

**Ingestion:** Harmful if swallowed. Do not induce vomiting without medical advice. Never give anything by

mouth to an unconscious person. Call a physician immediately.

# Most important symptoms and effects, both acute and delayed

Symptoms

Severe skin irritation. Causes severe skin burns. Skin contact can produce inflammation and blistering. Severe eye irritation. Causes serious eye damage. May cause corneal injury. May cause blindness. Inhalation of dust will produce irritation to gastrointestinal or respiratory tract, characterized by burning, sneezing, and coughing. Severe over-exposure can produce lung damage, choking, unconciousness or death. Over-exposure by inhalation may cause

respiratory irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

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TECHNICAL

#### **Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

#### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media** 

Suitable Extinguishing Media: Water. CO2 may be of no value in extinguishing fires

involving oxidizers and may only provide limited control.

Unsuitable Extinguishing Media: Dry chemical. Foam. Halons.

Specific hazards arising from the chemical

Hazardous Combustion Products: Silver oxides. Nitrogen oxides

Specific hazards: Oxidizer. Keep away from combustible materials (wood,

paper, oil, clothing, etc.)

The product is not flammable, but it may cause fire when in

contact with other material

Contact with combustible or organic materials may cause

fire

Will accelerate burning when involved in a fire

Container explosion may occur under fire conditions or when

heated

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

**Special Protective Actions for Firefighters** 

Specific Methods: For larger fires, use water spray or fog. Cool containers with

flooding quantities of water until well after fire is out. DO

NOT use combustible materials such as sawdust.

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus

pressure-demand, MSHA/NIOSH (approved or equivalent)

and full protective gear

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#### 6. ACCIDENTAL RELEASE MEASURES

# Personal precautions, protective equipment and emergency procedures

Personal Precautions: Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch

damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Avoid dust formation. Remove all sources of ignition. Keep combustibles (wood, paper, oil, clothing, etc.) away from

spilled material.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Prevent entry into waterways, sewers, basements or confined areas.

# Methods and material for containment and cleaning up

**Methods for containment**Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Do not use combustible

materials such as paper towels, sawdust, clothing, etc. to clean up spill. Clean

contaminated surface thoroughly.

#### 7. HANDLING AND STORAGE

#### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

## Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe vapours/dust. Do not ingest. Do not smoke. Keep away from combustible material. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

# Conditions for safe storage, including any incompatibilities

# **Technical Measures/Storage Conditions:**

Sensitive to light. Store in light-resistant containers. Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible materials. Do not store near combustible materials. Store in a segrated and approved area.

#### **Incompatible Materials:**

Acetylene. Ammonia. Combustible materials. Chlorosulfonic acid. Hydrochloric acid. Sulfuric acid. Nitric acid. Metals. Reducing agents. Ethylene oxide. Charcoal. ammonium hydroxide. Ethanol. Arsenic. Sulfur. Alkalis. Organic materials.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# **Control parameters**

#### National occupational exposure limits

# **United States**

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Silver Nitrate	None	None	None	None
7761-88-8				

#### Canada

Components	Alberta	British Columbia	Ontario	Quebec
Silver Nitrate	0.01 mg/m <sup>3</sup> TWA (as Ag)	0.01 mg/m <sup>3</sup> TWA (as Ag)	0.01 mg/m <sup>3</sup> TWA (as Ag)	0.01 mg/m <sup>3</sup> TWAEV (as Ag)
7761-88-8		0.03 mg/m <sup>3</sup> STEL (as Ag)		

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#### **Australia and Mexico**

Components	Australia	Mexico
Silver Nitrate	0.01 mg/m³TWA (as Ag)	None
7761-88-8		

# Appropriate engineering controls

Engineering measures to reduce exposure: 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, such as personal protective equipment

**Personal Protective Equipment** 

Product code: S1086

Goggles. Eye protection:

Chemical resistant apron. Long sleeved clothing. Gloves. Skin and body protection:

Wear respirator with dust filter. Respiratory protection:

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke.

Wash hands before breaks and immediately after handling the product.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Product name: SILVER NITRATE,

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Appearance:

Solid. Colorless. White. Crystals.

Odor: Taste Formula: Bitter. Metallic. Odorless. AgNO3

Molecular/Formula weight: Flammability: Flash point (°C):

169.87 Oxidizer No data available

Flashpoint (°C/°F): Flash Point Tested according to: **Autoignition Temperature (°C/°F):** 

No information available. Not available No information available

**Lower Explosion Limit (%): Upper Explosion Limit (%):** :Ha No information available No information available 6-7

Decomposition temperature(°C/°F): Melting point/range(°C/°F): Boiling point/range(°C/°F):

212°C/413.6°F 440°C/824°F No information available

Specific gravity: **Bulk density:** Density (g/cm3):

No information available No information available 4.35

Vapor pressure @ 20°C (kPa): **Evaporation rate:** Vapor density:

No information available No information available 5.8

VOC content (g/L): Partition coefficient Odor threshold (ppm): No information available No information available (n-octanol/water):

No information available

**Viscosity:** Miscibility: Solubility:

No information available No information available Easily soluble in cold water Easily soluble in hot water

Soluble in diethyl ether

Very slightly soluble in acetone

Solubility in water: 122 g/100 ml water

@ 0°C

Solubility in water: 952 g/100 ml water

@ 190°C

Solubility in alcohol: 1 g/30 ml alcohol;

1g/6.5 ml boiling alcohol

Solubility in acetone: 1 g/253 ml

acetone

### 10. STABILITY AND REACTIVITY

#### Reactivity

Strong oxidizer. Reactive with reducing agent, combustible materials, organic materials, metals, acids, alkalis 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 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

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**Chemical stability** 

Stability: Sensitive to light. Exposure to light accelerates decomposition. Stable under recommended

storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

**Conditions to avoid:** Incompatible materials. Exposure to light.

Incompatible Materials: Acetylene. Ammonia. Combustible materials. Chlorosulfonic acid. Hydrochloric acid.

Sulfuric acid. Nitric acid. Metals. Reducing agents. Ethylene oxide. Charcoal. ammonium hydroxide. Ethanol. Arsenic. Sulfur. Alkalis. Organic materials.

Hazardous decomposition products: Silver oxides. Nitrogen oxides (NOx).

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

### 11. TOXICOLOGICAL INFORMATION

# Information on likely routes of exposure

**Principal Routes of Exposure:** Skin. Eyes. Inhalation. Ingestion.

#### **Acute Toxicity**

# **Component Information**

Silver Nitrate - 7761-88-8

LD50/oral/rat = 1173 mg/kg Oral LD50 Rat LD50/oral/mouse = 50 mg/kg oral LD50 mouse LD50/dermal/rat = No information available LD50/dermal/rabbit = No information available LC50/inhalation/rat = No information available LC50/inhalation/mouse = No information available

Other LD50 or LC50information = No information available

#### **Product Information**

LD50/oral/rat =

VALUE- Acute Tox Oral = 1173mg/kg

LD50/oral/mouse =

Value - Acute Tox Oral = 50mg/kg

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat

VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat

**VALUE-Vapor** = No information available **VALUE-Gas** = No information available

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#### **VALUE-Dust/Mist** = No information available

LC50/Inhalation/mouse

**VALUE-Vapor** = No information available **VALUE - Gas =** No information available

VALUE - Dust/Mist = No information available

**Symptoms** 

Contact causes severe skin irritation and possible burns. It may cause dermatitis. It **Skin Contact:** 

can be absorbed through the skin.

Causes severe irritation and burns. Causes corneal opacification, bleedinh **Eye Contact:** 

conjunctiva, burns of conjunctica, blindness.

Inhalation Causes severe irritation of the respiratory tract and mucous membranes with

> possible chemical burns. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath. May cause nausea and headache. May

cause vomiting.

Ingestion Causes severe digestive/gastrointestinal tract irritation and can cause burns.

Symptoms may include pain and burning in the mouth, violent abdominal pain, a blackening of the skin and mucous membranes, salivation, vomiting of black material, diarrhea, hypermotility, ulcerative gingivitis. May affect kidneys (lesions of kidneys, anuria, ), lungs (lesions of lungs). Other symptoms of acute silver poisoning may include shock, dzziness, tetany, somnolence, vertigo, coma, convulsions), cardiovascular (fall in blood pressure), respiration (decreased respiration, cyanosis)

[Silver Nitrate].

No information available **Aspiration hazard** 

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Chronic Toxicity** 

Chronic exposure to Silver nitrate dust or fumes can gradually cause the eyes, nails, inner nose, throat, body organs and skin to bluish-grayish color. This usually takes 2

to 20 years to develop and is permanent.

Systemic absorption of the nitrate and reduction to nitrite may cause rare methemoglobinemia which is characterized by chocolate -brown colored blood. headache, weakness, dizziness, shortness of breath, cvanosis (bluish skin due to deficient oxygenation of blood), rapid heart rate. Eyes and Skin: Repeated or prolonged application on the skin or eyes causes argyria, a bluish-grayish

discoloration of the skin and eves.

Ingestion: Prolonged or repeated ingestion causes argyria characterized by a permanent blue-slate gray discoloration of the skin, eyes, mucous membranes, and internal organs. Prolonged or repeated ingestion may also affect the liver (hepatitis),

kidneys (nephritis), cardiovascular system, behavior/central nervous system

(symptoms similar to acute ingestion), and metabolism (weight loss)

Inhalation: Prolonged or repeated inhalation can cause bronchitis. It can also cause

argyrosis of the respiratory tract, bluish-gravish/blackening of the mucous

membranes of the respiratory tract with nasal mucosa showing impregnation of silver

nitrate. It may also affect the cardiovascular system, and blood.

Sensitization: No information available

**Mutagenic Effects:** May affect genetic material

Carcinogenic effects: IARC group 2A - Listed under Nitrate or Nitrite (ingested) under conditions that result

in endogenous nitrosation.

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
	Group 2A - Probably Carcinogenic to Humans (nitrate compounds; covers ingested nitrates under conditions that result in endogenous introsation)		Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

May cause adverse reproductive effects Reproductive Effects:

**Developmental Effects:** No information available **Teratogenic Effects:** No information available

**Specific Target Organ Toxicity** 

STOT - single exposure No information available

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

**Target Organs:** Mucous membrane. Skin. Eyes. Lungs.

### 12. ECOLOGICAL INFORMATION

# **Ecotoxicity**

# **Ecotoxicity effects:**

Silver Nitrate - 7761-88-8

0.001339 - 0.001637 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1 Freshwater Fish Species Data:

0.00181 - 0.00214 mg/L LC50 Pimephales promelas 96 h static 1

0.00452 - 0.00638 mg/L LC50 Pimephales promelas 96 h flow-through 1 0.00512 - 0.00787 mg/L LC50 Poecilia reticulata 96 h semi-static 1 0.0064 - 0.0106 mg/L LC50 Pimephales promelas 96 h semi-static 1 0.00839 - 0.1802 mg/L LC50 Oncorhynchus mykiss 96 h static 1 0.009 - 0.02 mg/L LC50 Lepomis macrochirus 96 h flow-through 1 0.0242 - 0.0484 mg/L LC50 Lepomis macrochirus 96 h semi-static 1

0.05 - 0.07 mg/L LC50 Lepomis macrochirus 96 h static 1 0.0027 mg/L LC50 Cyprinus carpio 96 h semi-static 1 0.0075 mg/L LC50 Oncorhynchus mykiss 96 h semi-static 1

0.009 mg/L LC50 Pimephales promelas 96 h 1 0.0008 - 0.001 mg/L EC50 Daphnia magna 48 h

Water Flea Data: 0.0008 - 0.0011 mg/L EC50 Daphnia magna 48 h

0.0006 mg/L EC50 Daphnia magna 48 h

Persistence and degradability: No information available

Bioaccumulative potential: No information available

**Mobility:** No information available

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### 13. DISPOSAL CONSIDERATIONS

# **Disposal Methods**

### Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

# Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Silver Nitrate	None	None	None	None

### 14. TRANSPORT INFORMATION

DOT

UN-No: UN1493
Proper Shipping Name: Silver nitrate

Hazard Class: 5.1

Subsidiary Risk: No information available

Packing Group: II ERG No: 140

Marine Pollutant

DOT RQ (lbs):

No data available

No information available

Symbol(s):

TDG (Canada)

UN-No: UN1493
Proper Shipping Name: UN1493
Silver nitrate

Hazard Class: 5.1

Subsidiary Risk: No information available

Packing Group:

**Description:** No information available

**ADR** 

UN-No: UN1493
Proper Shipping Name: Silver nitrate

Hazard Class: 5.1 Packing Group:

Subsidiary Risk:
Classification Code:
Description:
No information available
No information available
No information available
No information available

**IMO / IMDG** 

Product code: S1086

UN-No: UN1493
Proper Shipping Name: Silver nitrate

Hazard Class: 5.1

Subsidiary Risk: No information available

Packing Group:

Description:No information availableIMDG Page:No information availableMarine PollutantNo information available

Product name: SILVER NITRATE, TECHNICAL

### 14. TRANSPORT INFORMATION

EMS: F-A

MFAG: No information available Maximum Quantity: No information available

RID

UN-No: UN1493
Proper Shipping Name: Silver nitrate

Hazard Class: 5.1

Subsidiary Risk: No information available

Packing Group:

Classification Code: No information available Description: No information available

**ICAO** 

UN-No: UN1493
Proper Shipping Name: UN1493
Silver nitrate

Hazard Class: 5.1

Subsidiary Risk: No information available

Packing Group:

**Description:** No information available

**IATA** 

UN-No: UN1493
Proper Shipping Name: UN1493
Silver nitrate

Hazard Class: 5.1

Subsidiary Risk: No information available

Packing Group: II ERG Code: 5L

**Description:** No information available

## 15. REGULATORY INFORMATION

#### International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Silver Nitrate	Present	Present KE- 31281	Present	Present (1)-8	Present	Present	Present 231-853-9

### **U.S. Regulations**

Silver Nitrate

Massachusetts RTK: Present

New Jersey RTK Hazardous Substance List: 1672

New Jersey - Discharge Prevention - List of Hazardous Substances: Present

Pennsylvania RTK: Environmental hazard

Pennsylvania RTK - Environmental Hazard List Present New York Release Reporting - List of Hazardous Substances:

1 lb RQ

Louisana Reportable Quantity List for Pollutants: 1lbfinal RQ

0.454kgfinal RQ

California Directors List of Hazardous Substances: Present

#### California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

#### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

#### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

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Components	Carcinogen	Developmental Toxicity	Male Reproductive	Female Reproductive
			Toxicity	Toxicity:
Silver Nitrate	Not Listed	Not Listed	Not Listed	Not Listed

#### **CERCLA/SARA**

· ·	Substances and their	Hazardous	Section 302 Extremely Hazardous Substances and RQs	<b>Chemical Category</b>	Section 313 - Reporting de minimis
Silver Nitrate	1 lb final RQ 0.454 kg final RQ	None	None	None	None

### U.S. TSCA

•	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Silver Nitrate	Not Applicable	Not Applicable

### Canada

#### WHMIS hazard class:

C Oxidizing materials

E Corrosive material

#### Silver Nitrate

CE

E 1.7% (0.1N), 3.4% (0.2 N)

#### **Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -	
Silver Nitrate	1 %	

### Inventory

Components	Canada (DSL)	Canada (NDSL)
Silver Nitrate	Present	Not Listed

Components		CEPA - 2010 Greenhouse Gases Subject to Manditory Reporting
Silver Nitrate	Not listed	Not listed

# **EU Classification**

#### R-phrase(s)

R 8 - Contact with combustible material may cause fire.

R34 - Causes burns.

R50 - Very toxic to aquatic organisms.

R53 - May cause long-term adverse effects in the aquatic environment.

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# S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S60 - This material and its container must be disposed of as hazardous waste.

S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

S 1/2 - Keep locked up and out of the reach of children.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Components	Classification	Concentration Limits:	Safety Phrases
Silver Nitrate	C; R34	No information	S1/2 S26 S36/37/39 S45
	N; R50-53		S60 S61
	O; R8		

# The product is classified in accordance with Annex VI to Directive 67/548/EEC

# Indication of danger:

C - Corrosive.

N - Dangerous for the environment.

O - Oxidising.







# 16. OTHER INFORMATION

# 16. OTHER INFORMATION

Preparation Date:07/09/2015Revision Date:11/16/2015Prepared by:Sonia Owen

Disclaimer:

Product code: S1086

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**