



SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name Silver Nitrate Crystal

CAS number 7761-88-8

Synonyms Not available

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC
12501 Pauls Valley Road
Austin, Texas 78737
U.S.A.

Telephone 512-668-9918

Fax 512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing solids : Category 2

Corrosive to Metals : Category 1

Skin corrosion : Category 1A
Serious eye damage : Category 1
Reproductive toxicity : Category 1B
Short-term (acute) aquatic hazard: Category 1
Long-term (chronic) aquatic hazard: Category 1

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

Causes severe skin burns and eye damage
May cause respiratory irritation

Precautionary statements

Prevention:
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Use only outdoors or in a well-ventilated area.
Response:
Immediately call a POISON CENTER or doctor/physician.
Inhalation:
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Skin:
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
Eyes:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and continue rinsing.
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
Storage:
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Disposal:
Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Silver Nitrate	-	7761-88-8	95-100%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
If inhaled	If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.
In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
If swallowed	Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Not combustible. CO ₂ , dry chemical, dry sand, alcohol-resistant foam.
Unsuitable extinguishing media	No information available

5.2 Specific hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Should not be released into the environment. Do not allow material to contaminate ground water system.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

Hygiene measures

Handle in accordance with good industrial hygiene.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatibilities

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Silver Nitrate	TWA	0.01 mg/m3 (Silver)

US. ACGIH Threshold Limit Values

Component	Type	Value
Silver Nitrate	TWA	0.01 mg/m3 (Silver)

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Silver Nitrate	TWA	0.01 mg/m3

Biological occupational exposure limits

Not available.

8.2 Exposure controls

Appropriate engineering controls

Ensure that eyewash stations and safety showers are close to the work station location.

Personal protective equipment**Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Body Protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory protection

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.

Control of environmental exposure

No information available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State

Solid

Appearance	Crystalline
Odor	No information available
Odor Threshold	No information available
pH	No data available
Melting Point/Range	414 °F / 212 °C
Boiling Point/Range	824 °F / 440 °C
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	No information available
Upper	No information available
Lower	No information available
Vapor Pressure	No information available
Vapor Density	No data available
Density	4.350 g/cm ³
Solubility	Not applicable
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No data available
Decomposition Temp	No data available
Viscosity	No data available
Molecular Formula	AgNO ₃
Molecular Weight	169.87 g/mol
VOC Content(%)	No data available
Oxidizing properties	No data available

9.2 Other safety information The substance or mixture is classified as oxidizing with the category 2.

SECTION 10: Stability and reactivity

10.1 Reactivity

None known, based on information available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Decomposes on exposure to light. None under normal processing.

10.4 Conditions to avoid

Light. Incompatible products.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Nitrogen oxides (NO_x), Metal oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Silver Nitrate	No data available	No data available	No data available

Skin corrosion/irritation

No information available

Serious eye damage/eye irritation

No information available

Respiratory or skin sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Silver Nitrate	7761-88-8	0.10%	0.10%	-	0.10%	-

Specific target organ toxicity - single exposure

Respiratory system

Specific target organ toxicity - repeated exposure

No data available

Reproductive toxicity

May damage the unborn child.

Chronic effects

No data available

11.2 Additional Information

The toxicological properties have not been fully investigated.

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
Silver Nitrate	LC50	Pimephales promelas	0.0012 mg/l 96h
	EC50	Daphnia magna	0.00022 mg/l 48h
	ErC50	freshwater green alga	0.00252 mg/l 72h
	NOEC	Pimephales promelas (fathead minnow)	0.000351 mg/l 34d

12.2 Persistence and degradability

Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

Will likely be mobile in the environment due to its water solubility.

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Not available

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN/ID/NA number : UN 1493

Proper shipping name : Silver nitrate

Class : 5.1
Packing group : II
Labels : Division 5.1 - Oxidizing substances
ERG Code : 140
Marine pollutant : no
Poison Inhalation Hazard : No

IMDG

UN/ID/NA number : UN 1493
Proper shipping name : Silver nitrate
Class : 5.1
Packing group : II
Labels : 5.1
EmS Code : F-A, S-Q
Marine pollutant : yes
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IATA

UN/ID/NA number : UN 1493
Proper shipping name : Silver nitrate
Class : 5.1
Packing group : II
Labels : Division 5.1 - Oxidizing substances
Packing instruction (cargo aircraft) - 562
Packing instruction (passenger aircraft) - 558
Poison Inhalation Hazard : No

Special precaution for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15: Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not applicable

CERCLA Hazardous Substance List (40 CFR 302.4)

Component RQ (lbs)

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not applicable

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not applicable

SARA 311/312 Hazardous

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

SARA 313 (TRI reporting)

The following components are subject to reporting levels established by SARA Title III, Section 313: Silver nitrate 7761-88-8, 16-18 %

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not applicable

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not applicable

Safe Drinking Water Act

Not applicable

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not applicable

US state regulations

US. Massachusetts RTK - Substance List

Silver nitrate 7761-88-8

US. New Jersey Worker and Community Right-to-Know Act

Silver nitrate 7761-88-8

US. Pennsylvania Worker and Community Right-to-Know Law

Silver nitrate 7761-88-8

California Proposition 65

Not listed.

SECTION 16: Other information

Date of Issue: 4/16/2025

Revised on 07/06/2026

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.