



### SECTION 1: Product Identification

Chemical Name:	Silver nitrate (99.9%-Ag) (ACS)
Product Number:	702
CAS Registry Number:	7761-88-8
Formula:	AgNO <sub>3</sub>
EINECS Number:	231-853-9
Chemical Family:	metal nitrate salts
Synonym:	Lunar caustic, Nitric acid, silver(1+)salt

### SECTION 2: Composition and Information on Ingredients

Ingredient	CAS Number	Percent	ACGIH (TWA)	OSHA (PEL)
Title Compound	7761-88-8	100	0.01mg/m <sup>3</sup>	0.01mg/m <sup>3</sup>

### SECTION 3: Hazards Identification

Emergency Overview:	Harmful if swallowed. Causes burns to eyes, skin and mucous membranes. Possible risk of irreversible effects.
Primary Routes of Exposure:	Ingestion
Eye Contact:	Causes burns to the eyes
Skin Contact:	Causes caustic burns to the skin. Contact with the skin can lead to formation of dark blotches (silver staining)
Inhalation:	Causes burns to the nose, mucous membranes and respiratory tract.
Ingestion:	Harmful if swallowed. ingestion may lead to dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, and convulsions.
Acute Health Effects:	Harmful if swallowed. Causes burns to eyes, skin and mucous membranes.
Chronic Health Effects:	Long term exposure to silver and silver salts can lead to the condition known as argyria - a general gray pigmentation of the skin and mucous membranes. Possible risk of irreversible effects.
NTP:	No



IARC:	No
OSHA:	No
<b>SECTION 4: First Aid Measures</b>	
Eye Exposure:	Immediately flush the eyes with copious amounts of water for at least 10-15 minutes. A victim may need assistance in keeping their eye lids open. Get immediate medical attention.
Skin Exposure:	Wash the affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.
Inhalation:	Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.
Ingestion:	Seek medical attention immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.
<b>SECTION 5: Fire Fighting Measures</b>	
Flash Point:	not applicable
Autoignition Temperature:	none
Explosion Limits:	none
Extinguishing Medium:	carbon dioxide, foam or dry powder
Special Fire Fighting Procedures:	If this product is involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.
Hazardous Combustion and Decomposition Products:	If involved in a fire this material may emit irritating fumes.
Unusual Fire or Explosion Hazards:	Metal nitrates can be oxidizers. Contact with strong reducing agents could lead to fires and/or explosions.
<b>SECTION 6: Accidental Release Measures</b>	
Spill and Leak Procedures:	Small spills can be mixed with vermiculite or sodium carbonate and swept up.



### SECTION 7: Handling and Storage

Handling and Storage: Store in a tightly sealed container. Keep away from heat and direct sunlight.

### SECTION 8: Exposure Controls and Personal Protection

Eye Protection: Always wear approved safety glasses when handling a chemical substance in the laboratory.

Skin Protection: Wear protective clothing and gloves.

Ventilation: If possible, handle the material in an efficient fume hood.

Respirator: No respirator required.

Additional Protection: No additional protection required.

### SECTION 9: Physical and Chemical Properties

Color and Form: white xtl.

Molecular Weight: 169.87

Melting Point: 212°C

Boiling Point: 444°C dec.

Vapor Pressure: not applicable

Specific Gravity: 4.352

Odor: none

Solubility in Water: 122g/100cc (0°C)

### SECTION 10: Stability and Reactivity

Stability: air and moisture stable

Hazardous Polymerization: no hazardous polymerization

Conditions to Avoid: Contact with strong reducing agents or organic matter. Some nitrates can explode if heated to high temperatures.

Incompatibility: reducing agents, organic matter, phosphorus and sulfur

Decomposition Products: nitrogen oxides and silver metal



### SECTION 11: Toxicological Information

RTECS Data:	Administration into the eye (rabbit); Standard Draize test: 1 mg. Unreported (human-man); LDLo: 29 mg/kg. Oral (rat); LD50: 1173 mg/kg. Intraperitoneal (rat); LD50: 83 mg/kg. Oral (dog); LDLo: 20 mg/kg. Oral (rabbit); LDLo: 800 mg/kg. Oral (rat); TDLo: 28560 mg/kg/17W-I. Oral (rat); TDLo: 14 gm/kg/13W-C. Administration onto the skin (mouse); TDLo: 15 gm/kg/19W-I. Oral (rat); TDLo: 28560 mg/kg. Human Lymphocyte; DNA inhibition: 76 umol/L.
Carcinogenic Effects:	Equivocal tumorigenic agent by RTECS criteria
Mutagenic Effects:	Possible mutagenic effects reported in RTECS
Tetratogenic Effects:	No data available

### SECTION 12: Ecological Information

Ecological Information:	Very toxic to aquatic organisms. May cause long-term adverse effects in the environment.
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### SECTION 13: Disposal Considerations

Disposal:	Dispose of according to local, state and federal regulations.
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### SECTION 14: Transportation

Shipping Name (CFR):	Silver nitrate
Hazard Class (CFR):	5.1
Additional Hazard Class (CFR):	NA
Packaging Group (CFR):	II
UN ID Number (CFR):	UN# 1493
Shipping Name (IATA):	Silver nitrate
Hazard Class (IATA):	5.1
Additional Hazard Class (IATA):	NA
Packaging Group (IATA):	II



UN ID Number (IATA):	UN# 1493
<b>SECTION 15: Regulatory information</b>	
TSCA:	Listed in the TSCA inventory
SARA (Title 313):	Title compound: See Category Code N511 and N740 for reporting.
Second Ingredient:	none
Third Ingredient:	none