



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Silver (I) Nitrate**
PRODUCT NUMBER: 3234
CAS NUMBER: 7761-88-8
SYNONYMS: Nitric acid, silver (1+) salt
MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H272	May intensify fire; oxidizer.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Phrases

P210	Keep away from heat.
P220	Keep/Store away from clothing/combustible materials.
P221	Take any precaution to avoid mixing with combustibles.
P260	Do not breathe dust or mist.
P270	Do not eat, drink, or smoke when using this product.
P273	Avoid released to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312+P330	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340+P310	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.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378	In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.

HMIS CLASSIFICATION:

Health: 3 Chronic: * Fire: 0 Reactivity Hazard: 2

NFPA RATING:

Health: 3 Flammability: 0 Reactivity Hazard: 2 Special: OX

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.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: AgNO₃

Molecular Weight: 169.87

CHEMICAL NAME	CAS#	%
Silver Nitrate	7761-88-8	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. 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 assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable.

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Carbon dioxide, foam, or dry powder.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Nitrogen oxides and silver oxides.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Without creating dust, sweep up and keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid formation of dust. Keep away from sources of ignition.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Light sensitive. Store away from heat and direct sunlight.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Silver nitrate	0.01 mg/m ³	TWA	OSHA
	0.01 mg/m ³	TWA	ACGIH

TWA: Time Weighted Average over 8 hours of work.

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, apron, or lab coat.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: White solid

ODOR: None

MOLECULAR WEIGHT: 169.87

BOILING POINT: 440° C (dec.)

MELTING POINT: 212° C

SPECIFIC GRAVITY: 4.350 gm/ml

SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Contact with strong reducing agents or organic matter. Some nitrates can explode if heated to high temperatures. Decomposes on exposure to light.

INCOMPATIBILITY: Reducing agents, organic matter, phosphorus, and sulfur.

DECOMPOSITION PRODUCTS: Nitrogen oxides and silver oxides.

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – Rat – 1173 mg/kg.

CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.

MUTAGENIC EFFECTS: Not available

TETRAOGENIC EFFECTS: Not available

RTECS: VW4725000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

TOXICITY TO FISH: Mortality NOEC – Onorhynchus mykiss (rainbow trout) – 0.108 mg/l – 96 h. Mortality NOEC – Onorhynchus mykiss (rainbow trout) – > 0.007 mg/l – 7.0 d. LC50 – Leuciscus idus (Golden orfe) – 0.029 mg/l – 96 h. LC50 – Onorhynchus mykiss (rainbow trout) – 0.006 mg/l – 96.0 h.

TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES: EC50 – Daphnia magna (Water flea) – 0.0006 mg/l – 48 h.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

UN1493
Silver Nitrate
Class 5.1
PG II

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory
SARA 302/304: Not listed
SARA 311/312: Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard
SARA (TITLE 313): Silver Nitrate
MASSACHUSETTS RIGHT TO KNOW: Silver Nitrate
PENNSYLVANIA RIGHT TO KNOW: Silver Nitrate
NEW JERSEY RIGHT TO KNOW: Silver Nitrate
CALIFORNIA PROP. 65: Not Listed

SECTION 16 OTHER INFORMATION

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SDS DEPT.