



# Safety Data Sheet

## Silver Nitrate Crystals

### 1. Identification

**Product Name:** Silver Nitrate Crystals

**Item #:** DI0505006, MA0101045, MA0101046, MA0101047, RW0370 **Web SDS:** S116

**Synonyms:** Nitric acid silver(1+) salt

**Recommended Use:** N/A

**Manufacturer:**

BBC Biochemical  
409 Eleanor Lane,  
Mount Vernon, WA 98273  
1-800-635-4477

**Restrictions on Use:** N/A

**In Case of Emergency:**

Chemtrec US 1-800-424-9300  
Chemtrec International 703-527-3887

### 2. Hazards Identification

**OSHA Hazard Classification(s):**

Acute Toxicity - Oral - Category 4

Skin Irritation - Category 2

Eye Irritation - Category 2A

Oxidizing Solids - Category 3

**Signal Word:** Warning

**Hazard Statement(s):** Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May intensify fire; oxidizer.

**Pictogram(s):**



**Precautionary Statement(s):** Prevention: Wash body thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves. Wear eye protection, face protection. Keep away from heat. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles and/or incompatible materials. Wear protective gloves, eye protection, face protection.

Response: If swallowed: Call a doctor if you feel unwell. Rinse mouth. If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention. In case of fire: Use water, dry chemical, CO2 or foam to extinguish.

Storage: N/A

Disposal: Dispose of contents/container in accordance with local regulations.

**Descriptions of Hazards not otherwise classified:** N/A

**Percent of mixture with unknown acute toxicity:** N/A

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Silver Nitrate	Silver Salt	7761-88-8	100

### 4. First Aid Measures

**Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

**Inhalation:** Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Toxic by ingestion. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration



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of liquid into the lungs. Get medical attention.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.

### 5. Fire- Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Not combustible, but enhances combustion of other substances. Gives off irritating or toxic fumes (or gases) in a fire.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store in a well-ventilated place. Keep cool. Do not store near combustible materials. Keep away from direct sunlight.

### 8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

Reagent	CAS #	OSHA PEL TWA
Silver Nitrate	7761-88-8	(Vacated) TWA: 0.01mg/m3

**ACGIH Threshold Limit Values (TLVs):**

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Silver Nitrate	7761-88-8	0.01 mg/m3 TWA (as Ag)	

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

### 9. Physical and Chemical Properties Section

**Appearance:** White, Crystals

**Molecular Weight:** 169.8

**Molecular Formula:** AgNO<sub>3</sub>

**pH:** N/A

**Boiling Point and Boiling Range:** 444°C

**Melting Point/Freezing Point:** 212°C

**Flash Point:** N/A

**Specific Gravity/Relative Density:** 0.000

**Odor:** N/A

**Odor Threshold:** N/A

**Color:** White



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**Flammability (solid/gas):** N/A  
**Vapor Density:** N/A  
**Upper/Lower flammability or explosive limits:** N/A  
**Vapor Pressure:** N/A  
**Evaporation Rate:** N/A  
**Partition Coefficient: n-octanol/water:** N/A  
**Viscosity:** N/A  
**Auto-ignition temperature:** N/A  
**Solubility:** N/A  
**Decomposition Temperature:** N/A

### 10. Stability and Reactivity

**Reactivity:**

**Chemical Stability:** Stable

**Conditions of Stability/Instability:** Oxidizer: Contact with combustible/organic material may cause fire. Light sensitive. Incompatible products. Excess heat. Combustible material. Avoid dust formation. Protect from light.

**Stabilizers needed:** None

**Safety issue indicated by appearance change:** N/A

**Other:** N/A

**Hazardous Reactions:** N/A

**Hazardous Polymerization:** Does not occur

**Conditions to avoid:** Incompatible products, excess heat, combustible material. Avoid dust formation. Protect from light.

**Classes of Incompatible Materials:** Oxidizers, Strong Acids, Strong Bases, chloride, calcium carbide, ethyl dichlorosilane.

**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide and Nitrogen oxides NOx) may be released in a fire.

### 11. Toxicological Information

**Likely Routes of Exposure**

**Eyes:** Irritation, burns.

**Skin:** Irritation, burns.

**Inhalation:** Dizziness, headache.

**Ingestion:** Nausea, acute toxicity.

**Signs or Symptoms of Exposure:** Nausea.

**Effects from short term exposure (delayed, immediate, chronic):** Irritation to the eyes, nose, throat; headache, dizziness, nausea.

**Acute Toxicity (Numerical Measures):** Oral rat LD50: 1173 mg/kg ; Oral guinea pig LD50 473 mg/kg ; Oral rabbit LD50 800 mg/kg

**Carcinogenicity (NTP, IARC, OSHA):** Not listed as a carcinogen.

### 12. Ecological Information

**Ecotoxicity:** Freshwater Fish: *Leuciscus idus*: LC50: 0.029 mg/L/96h ; Water Flea : EC50: 0.0006 mg/L/48h ; Microtox: *Photobacterium phosphoreum*: EC50: 0.038 mg/L/24h *Photobacterium phosphoreum*: EC50: 0.395 mg/l/15min *Photobacterium phosphoreum*: EC50: 0.44 mg/L/30 min as Ag++ *Photobacterium phosphoreum*: EC50: 0.86 mg/L/15 min as Ag++

**Persistence and degradability:** N/A

**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** N/A

**Mobility in the soil:** N/A

**Adverse Environmental Effects:** N/A

### 13. Disposal Considerations



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**Recommended Disposal Containers:** Check with your local waste authorities\*

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.\*

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.\*

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.\*

**Waste Stream:** Consult your local or regional authorities.\*

### 14. Transport Information

**UN Number:** UN1493

**UN Proper Shipping Name:** Silver Nitrate

**Transport Hazard Class(es):** 5.1

**Packing Group Number:** II

**Environmental Hazards (IMDG code):**

**Marine Pollutant:** No

**Transport in Bulk (IBC Code):** N/A

**Special Transport Precautions:** N/A

### 15. Regulatory Information

**OSHA:**

**DOT:**

**EPA:**

**CPSC:**



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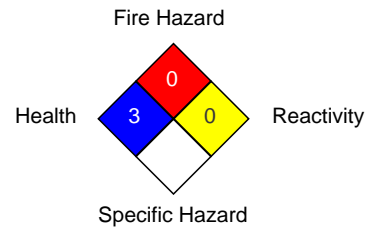
### 16. Other Information

Revision Date: 12/05/2014

#### NFPA

Health	3
Fire Hazard	0
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



#### HMIS

Health	3
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	3
Flammability	0
Physical Hazard	0
Personal Protection	

#### Notice to Reader:

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