

Material Safety Data Sheet

# SILVER NITRATE, 1% pH 4.0

## Section 1 - Chemical Product and Company Identification

**MSDS Name:** Silver Nitrate, 1% pH 4.0  
**Catalog Numbers:** A-111-1, A-118-2, SO-1146  
**Company Identification:** ROWLEY BIOCHEMICAL  
10 ELECTRONICS AVENUE  
DANVERS, MA 01923  
**For information, call:** 978-739-4883  
**Emergency Number:** 800-424-9300  
**For CHEMTREC assistance, call:** 800-424-9300

## Section 2 - Hazards Identification

### GHS Classifications

#### HEALTH HAZARDS

**H302 Acute Oral Toxicity:** 4  
**H312 Acute Dermal Toxicity:** 4  
**H315 Skin Corrosion/ Skin irritation:** 2  
**H319 Eye damage/ Irritation:** 2A  
**H373 Specific Target Organ Toxicity:** 2

#### PHYSICAL HAZARDS

**H272 Oxidizer:** 3

#### ENVIRONMENTAL HAZARDS

**Aquatic acute environmental hazards:** Not Classified  
**Chronic environmental hazards:** Not Classified

#### Pictograms or Hazard symbols and Hazard statement



**Warning: Harmful if swallowed.  
Harmful in contact with skin.  
Cause serious eye irritation.**



Warning: **Causes mild skin irritation.**



Warning: **May intensify fire; oxidizer**



Warning: **May cause to damage to following organs: mucous membranes, skin and eyes through repeated or prolonged exposure**

### **H302**

**P264** Wash thoroughly after handling.

**P270** Do not eat, drink, or smoke when using this product.

**P301 + P312** If swallowed, call a physician if you feel unwell.

**P330** Rinse mouth.

**P501** Dispose of contents/container in accordance with local/regional/national/international regulations.

### **H312**

**P280** Wear protective gloves, clothing, and eye and face protection.

**P302 + P352** If on skin, wash with plenty of water. Remove contact lenses if present and easy to do so. Continue rinsing.

**P312** Call a physician if you feel unwell.

**P363** Wash contaminated clothing before reuse.

### **H315**

**P332 + P313** If skin irritation occurs, get medical advice/attention

**P362** Take off contaminated clothing and wash before reuse.

### **H319**

**P305 + P351 + P338** If in eyes, rinse cautiously with water for several minutes.

**P337 + P313** If eye irritation persists, get medical advice/attention.

### **H373**

**P260** Do not breathe fume/gas/mist/vapors.

**P314** Get medical advice/attention if you feel unwell.

### **H272**

**P210** Keep away from heat, flames, and hot surfaces. No smoking.

**P220** Store away from combustible materials. Incompatible with: reducing agents, easily oxidized materials, organic materials and metal powders.

**P221** Take any precaution to avoid mixing with combustibles.

**P370 + P378** In case of fire (see section 5)

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7761-88-8	Silver Nitrate	1 w/v
77-92-9	Citric Acid	0.03 v/v
7732-18-5	Water	100 v/v

### Section 4 - First Aid Measures

**Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**Dermal Exposure:** In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek immediate medical advice.

**Oral Exposure:** If swallowed seek immediate medical advice.

**Inhalation Exposure:** If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

### Section 5 - Fire Fighting Measures

**NFPA** HEALTH 1 FLAMMABILITY 0 REACTIVITY 0

Firefighters should wear proper protective clothing and self contained breathing apparatus with full piece operated in positive pressure mode to prevent contact with skin and eyes.

**Special Remarks on Fire hazards:** Contact with combustible or organic materials

**Extinguishing Media:** Use water spray, dry chemical powder, or appropriate foam.

**Flash Point:** N/A

**Auto ignition Temperature:** N/A

**Explosion Limits:** N/A

**Upper:** N/A

### Section 6 - Accidental Release Measures

**Procedure(s) of Personal Precaution(s):**

Wear protective gear.

**Methods for Cleaning up:** Absorb with sand, earth or vermiculite. Carefully sweep up and containerize for proper disposal.

## Section 7 - Handling and Storage

Use care when handling. Avoid contact with skin, eyes and clothing. Store at 4 degree C temperature.

## Section 8 - Exposure Controls, Personal Protection

### **Engineering Controls:**

Mechanical exhaust

### **Personal Protective Equipment:**

Other: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** clear

**pH:** 4.0

**water**

**Vapor Pressure:** 2.3 kPa @ 20deg. C

**Vapor Density:** 0.62 (Air=1)

**Evaporation Rate:** N/A

**Viscosity:** N/A

**Boiling Point:** 100 deg. C

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Hazardous Decomposition Products:** Metal Oxide fume and nitrogen oxides.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities with other material:** Reducing agents, easily oxidized materials, organic materials and metal powders.

Section 11 - Toxicological Information

**RTECS#:** CAS#: 7761-88-8 RTECS# VW4725000

**LD50/LC50:**

CAS#: 7761-88-8 Silver Nitrate ORAL (LD50): Acute: 1173mg/kg [Rat] 50mg/kg [Mouse]  
473mg/kg [Guinea pig]

LC50: Not Listed

CAS#: 77-92-9

Acute toxicity LD50 Oral - rat - 5,400 mg/kg (OECD Test Guideline 401) Inhalation: no data  
available LD50 Dermal - rat - > 2,000 mg/kg

**Carcinogenicity:**

CAS#7761-88-8 : Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Route of exposure:**

Multiple routes: May cause irritation. May be harmful by inhalation, ingestion, or skin  
absorption.

**Conditions aggravated by exposure:**

The toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information

CAS#7761-88-8 **No data available.**

Section 13 - Disposal Considerations

**Appropriate method of disposal of substance or preparation:**

Handled as hazardous waste and sent to an RCRA approved incinerator or disposed in an  
RCRA approved wasted facility.

Section 14 – Transport Information

**DOT**

Non-Regulated

Section 15 - Regulatory Information

US Classification and label test

US Statements: Caution: Irritant, to skin and eyes.

United States Regulatory Information

SARA Listed: No

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: no

NDSL: no

**Risk Phrases:**

R8 Contact with combustible material may cause fire

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed

R36/37/38 Irritating to eyes, respiratory system and skin

R48/21/22 Harmful: danger of serious damage to health by prolonged exposure in contact with skin or if swallowed.

**Safety Phrases:**

S26/28 In case of contact with eyes or skin, rinse immediately with plenty of water and seek medical advice

S36 Wear suitable protective clothing

S14 Keep away from reducing agents, easily oxidized materials, organic materials and metal powders.

Section 16 - Additional Information
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**MSDS Creation Date:** January 22,2004

**Revision #** 7/18/14 YM-Co-sign RC.

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