

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 691.00

Revision Date: January 21, 2011

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Silver Nitrate

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

### SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

Silver Nitrate

CAS#: 7761-88-8

### SECTION 3 — HAZARDS IDENTIFICATION

Colorless, transparent, rhombic crystals; turns color on exposure to light in presence of organic materials. Faint nitric acid odor.

Highly toxic by ingestion and inhalation. Corrosive to body tissues. Ingestion may be fatal, as little as 2 grams can be fatal to humans.

#### FLINN AT-A-GLANCE

Health-3

Flammability-0

Reactivity-3

Exposure-3

Storage-3

0 is low hazard, 3 is high hazard

### SECTION 4 — FIRST AID MEASURES

Call a physician, seek medical attention for further treatment, observation and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for 15 minutes.

External: Wash continuously with fresh water for 15 minutes.

Internal: Do NOT induce vomiting. Give large quantities of water. Call a physician or poison control IMMEDIATELY.

### SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable solid. Oxidizer.

When heated to decomposition, emits toxic fumes of NOx. Reacts with ammonia to form shock sensitive compounds.

**Fire Fighting Instructions:** Do NOT use triclass, dry chemical, carbon dioxide or halon fire extinguisher.

Flood with water. Firefighters should wear PPE and SCBA with full facepiece operated in positive mode.

#### NFPA CODE

None

established

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from area. Do not allow solid to become airborne. Ventilate area and wipe up with wet toweling. Place in sealed bag or container and dispose. Wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

### SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #3. Store with amides, nitrates and nitrites.

Store in a cool dry place. Light sensitive. Store in a Flinn Chem-Saf bag, and lock up in a poison cabinet.

Use and dispense in a hood. Keep away from all ignition sources.

### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire). Exposure guidelines: TWA 0.01 mg/m<sup>3</sup> (as Ag) (ACGIH)

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Colorless, transparent, rhombic crystals; turns color on exposure to light in presence of organic materials. Faint nitric acid odor.

Solubility: Soluble in cold water--more so in hot water.

Formula: AgNO<sub>3</sub>

Formula Weight: 169.88

Boiling Point: 444 °C (decomposes)

Melting Point: 212 °C

pH: 6

Specific Gravity: 4.352

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**SECTION 10 — STABILITY AND REACTIVITY**

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Avoid contact with strong reducers, ammonia, strong bases, alcohols, magnesium.

Shelf Life: Indefinite, if kept dry. Light sensitive.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Highly toxic, corrosive, abdominal pain

Chronic effects: Possible mutagen

Target organs: N.A.

ORL-RAT LD<sub>50</sub>: 1173 mg/kg

IHL-RAT LC<sub>50</sub>: N.A.

SKN-RBT LD<sub>50</sub>: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available but silver nitrate is expected to have ecological effects.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please consult with state and local regulations.

Flinn Suggested Disposal Method #11 is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping Name: Silver nitrate

Hazard Class: 5.1, Oxidizer

UN Number: UN1493

N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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TSCA-listed, EINECS-listed (231-853-9), RCRA code D001, D011.

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**SECTION 16 — OTHER INFORMATION**

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**Consult your copy of the *Flinn Science Catalog/Reference Manual*  
for additional information about laboratory chemicals.**