

MSDS - Material Safety Data Sheet**Product Name: Silver Nitrate Spray**

MSDS No.: 205C

I. Basic Information:**Manufacturer:** Sirchie Finger Print Laboratories**Address:** 100 Hunter Place**City, ST Zip:** Youngsville, NC 27596**Country:** USA**Contact:** Tech Support**Information Telephone Number:** 919-554-2244**Emergency Contact:** ChemTrec**Emergency Telephone Number:** 800-424-9300**Emergency Restrictions:****Product Name:** Silver Nitrate Spray**MSDS No.:** 205C**Issue Date:** 10/24/2011**Supersedes Date:** Not Available**II. Hazards Identification:****EMERGENCY OVERVIEW**

FLAMMABLE! Respiratory and digestive tract irritant. Skin and eye irritant. May cause central nervous system depression. May cause liver and kidney damage.

This material is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Health Effects**Route(s) of Entry:**

Inhalation, ingestion, skin, eyes

Health Hazards (Acute and Chronic):

Prolonged or repeated exposure may cause dermatitis, skin defatting, conjunctivitis, cataracts, inflammation of the respiratory tract, weakness, drowsiness, vertigo, hematological changes, anemia, liver and kidney damage

Signs and Symptoms:

Inhalation: Dizziness, drowsiness, stupor

Ingestion: Skin discoloration, nausea, diarrhea, bloody vomit, inebriation (drunkenness), coma

Skin: Cracking

Medical Conditions Generally Aggravated by Exposure:

Skin, eye, respiratory, liver, kidney, blood diseases

Other Health Warnings:

Consumption of alcohol may increase the acute effects of exposure.

Potential Environmental Effects

Prevent from entering sewers or waterways. May be harmful to some aquatic life.

III. Composition/Information on Ingredients:

Chemical Name	CAS No.	% Range	Trade Secret
Acetone	67641	>94	
Silver nitrate	7761888	Trace	
Water (Distilled)	7732185	<6	

IV. First Aid Measures:**Emergency and First Aid Procedures:**

MSDS - Material Safety Data Sheet

Product Name: Silver Nitrate Spray

MSDS No.: 205C

Inhalation: Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen (To be administered by qualified medical personnel only!) Get medical attention.

Ingestion: DO NOT induce vomiting. If victim is conscious and alert, give 2-4 cups of water. (Never give anything by mouth to an unconscious person!) Get medical attention immediately.

Skin: Flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing. Destroy contaminated shoes. Seek medical attention.

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Do not allow victim to rub or keep eyes closed. Get medical aid immediately.

Note to physicians: Absorption of silver nitrate into the body leads to the formation of methemoglobin that, in sufficient concentrations, causes cyanosis. Since reversion of methemoglobin to hemoglobin occurs spontaneously after termination of exposure, moderate degrees of cyanosis need to be treated only by supportive measures such as bed rest and oxygen inhalation. Thorough cleaning of the entire contaminated area of the body, including scalp and nails, is of utmost importance. If cyanosis is severe, intravenous injection of methylene blue, 1mg per kg of body weight, may be of value.

Note to Physicians:

None specified

V. Fire Fighting Measures:

Suitable Extinguishing Media:

Dry chemical, carbon dioxide, water spray or fog, alcohol-resistant foam

Unsuitable Extinguishing Media:

Wear self-contained breathing apparatus and protective clothing. If possible, remove containers from fire area. Water may be ineffective if flow of flammable liquid is not stopped. Water may be used to cool fire-exposed containers. Evacuate immediately if containers become discolored, or if rising sound is emitted from containers.

Products of Combustion:

Vapors from this product may travel some distance from original point to an ignition source and flash back.

"Empty" containers may contain product residue and may be dangerous. Empty containers should be completely drained and bunged and then disposed of according to local, state, and federal regulations.

Protection of Firefighters:

Wear normal turnout gear.

VI. Accidental Release Measures:

Personal Precautions:

Wear vapor respirator, safety goggles, and rubber gloves.

Environmental Precautions:

Prevent from entering sewers or waterways. May be harmful to some aquatic life.

Methods for Containment:

Shut off at source, if possible to do so without risk

Methods for Cleanup:

Remove sources of ignition (i.e. open flames, sparks). Dike area. Soak up with inert absorbent material (do not use flammable substances such as sawdust). Scoop up with non-sparking equipment. Ventilate and wash spill site thoroughly to remove residual contamination after collection.

Other Information:

Dispose according to local, state, and federal regulations.

VII. Handling and Storage:

Handling Precautions:

Keep in tightly closed container. Avoid all ignition sources (heat, open flame, spark). Avoid incompatible materials. Electrically bond and ground all containers and equipment before transfer or use of material. Use only in well-ventilated areas. Avoid breathing vapors. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling.

MSDS - Material Safety Data Sheet**Product Name: Silver Nitrate Spray**

MSDS No.: 205C

Storage Precautions:

Store with flammable liquids.

"Empty" containers may contain product residue and may be dangerous. Empty containers should be completely drained and bunged and then disposed of according to local, state, and federal regulations.

VIII. Exposure Controls/Personal Protection:

Chemical Name	OSHA PEL	ACGIH TLV	Other Limits
Acetone	1000 ppm	750 ppm	-4 F
Water (Distilled)	None	None	212 F
Silver nitrate	.01 mg/m3	.01 mg/m3	Not Available

Engineering Controls:

Use only in well-ventilated areas.

Personal Protective Equipment:

Safety goggles, gloves, vapor respirator, protective clothing

IX. Physical and Chemical Properties:**Boiling Point:** 133 F**Boiling Range:** Not Available**Solubility In Water:** Miscible**Flash Point:** -4 F**Odor Threshold:** Not Available**Vapor Density (AIR = 1):** 2.0**pH Range:** Not Available**Decomposition Temp:** Not Available**Lower Explosive Limit:** 2.5**Specific Gravity (H2O = 1):** Not Available**Other Information:** None specified**Melting Point:** 32 F**Freezing Point:** Not Available**Evaporation Rate (Butyl Acetate = 1):** 6.0**Flash Point Method:** Not Available**Appearance and Odor:** Clear liquid; ketone odor**Vapor Pressure (mm Hg.):** 180.0**Partition Coefficient:** Not Available**Auto-ignition Temp:** Not Available**Upper Explosive Limit:** 13.0**X. Stability and Reactivity:****Stability:**

Stable

Conditions to Avoid:

None specified

Incompatible Materials:

Acids, aliphatic amines, bromine, bromine trifluoride, bromoform, chloroform, chromium trioxide, chlorides, dioxygen difluoride + solid carbon dioxide, hexachloromelamine, hydrogen peroxide, nitric compounds, oxidizers, plastics, platinum, potassium tert-butoxide, rayon, sodium hypobromite, sodium hypoiodite, sulfur dichloride, thiothiazole perchlorate, 1,1,1-trichloroethane, trichloromelamine, ignition sources (heat, open flame, spark), combustible materials, reducing agents, aqueous ammonia

Hazardous Decomposition Products:

Carbon oxides, nitrogen oxides

Possibility of Hazardous Reactions:

Does not occur.

MSDS - Material Safety Data Sheet

Product Name: Silver Nitrate Spray

MSDS No.: 205C

XI. Toxicological Information:

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ACUTE ORAL LD50: Acetone >9 g/kg (rabbit), Toluene >5 g/kg (rat)
 ACUTE DERMAL LD50: Acetone >20 g/kg (rabbit), >14 ml/kg (rabbit)

XII. Ecological Information:

Prevent from entering sewers or waterways. May be toxic to some aquatic life.

XIII. Disposal Considerations:

Dispose according to local, state, and federal regulations.

Acetone

RCRA U-Series: waste no. U002 (Ignitable waste)
 This material is banned from land disposal according to RCRA.

XIV. Transport Information:

Shipping Name: Acetone

DOT Hazard Class: 3

DOT Subsidiary Hazard Class: Not Available

UN/NA#: UN1090

Packing Group: II

Transportation Information:

Keep in tightly closed container. Avoid all ignition sources (heat, open flame, spark). Avoid incompatible materials. Electrically bond and ground all containers and equipment before transfer or use of material. Avoid breathing vapors. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling.

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Shipping name: Acetone
 Hazard class: 3
 UN no.: UN 1090
 Packing group: II
 Flammable liquid!

XV. Regulatory Information:

Acetone is listed on the TSCA inventory.

Acetone OSHA flammability class: IB

This material is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

XVI. Other Information:

- Chemical State:** Liquid Gas Solid
- Chemical Type:** Pure Mixture
- Hazard Category:**
- Acute Chronic Fire Pressure Reactive



Additional Manufacturer Warnings:

Using this product under normal, properly instructed procedures should not be hazardous.

3	Health
4	Flammability
1	Physical Hazard
H	Pers. Protection

MSDS - Material Safety Data Sheet

Product Name: Silver Nitrate Spray

MSDS No.: 205C

Additional Product Information:

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.