Material Safety Data Sheet

Section 1 - Product and Company Information

Product Name: SILVER, WIRE, 0.1MM 0IAM, 99.9%
Product Number: 348793
Brand: Aldrich Chemical
Company: Sigma-Aldrich
Street Address: 3050 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 314 771 5765
Emergency Phone: 414 273 3850 Ext. 5996
Fax: 800 325 5062

Section 2 - Composition/Information on Ingredient

Substance Name: SILVER
CAS #: 7440-22-4
SARA 313: Yes
Formula: Ag
Synonyms: Argentum, C.I. 77820, L-3, Shell silver, Silver (German), Silver (ACGIH/OSHA), Silver atomSilver foil

Section 3 - Hazards Identification

HIMS Rating
Health: 0
Flammability: 0
Reactivity: 1

NFPA Rating
Health: 0
Flammability: 0
Reactivity: 1

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

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

Dermal Exposure
In case of contact, immediately wash skin with soap and copious amounts of water.

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.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s)
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling
Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage
Suitable
Keep tightly closed. Store in a cool dry place.

Special Requirements
Air sensitive.

Section 8 - Exposure Controls / PPE

Engineering Controls
Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment
Respiratory
NIOSH/MSHA-approved respirator.

Hand
Compatible chemical-resistant gloves.

Eye
Chemical safety goggles.

General Hygiene Measures
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance
Physical State
Solid

Extinguishing Media
Suitable
Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting
Protective Equipment
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)
Emits toxic fumes under fire conditions.

Section 11 - Other Information

Aldrich Chemical - 348783
Sigma-Aldrich Corporation
www.sigma-aldrich.com
Molecular Weight: 107.87 AMU

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<th>Property</th>
<th>Value</th>
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<tr>
<td>Solubility</td>
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</table>

Section 10 - Stability and Reactivity

Stability
Conditions to Avoid
Sensitive to air.
Materials to Avoid
Oxygen, strong acids, strong bases.

Hazardous Decomposition Products
Hazardous Decomposition Products
Silver/silver oxides.

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

Route of Exposure
Skin Contact
May cause skin irritation.
Skin Absorption
May be harmful if absorbed through the skin.
Eye Contact
May cause eye irritation.
Inhalation
May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion
May be harmful if swallowed.

Signs and Symptoms of Exposure
May cause argyria (a slate-gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver). To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: VW3500000

Chronic Exposure Cardiogen
Rat - Multiple: 330 mg/kg. Result: Tumorogenic: equivocal tumorogenic agent by RTECS criteria. Tumorogenic: Tumors at site or application.
Rat - Implant: 2400 mg/kg. Result: Tumorogenic: equivocal tumorogenic agent by RTECS criteria. Tumorogenic: Tumors at site or application.
Mice - Implant: 11 mg/kg. Result: Tumorogenic: equivocal tumorogenic agent by RTECS criteria. Tumorogenic: Tumors at site or application.
Rat - Implant: 2570 mg/kg. Result: Tumorogenic: equivocal tumorogenic agent by RTECS criteria. Tumorogenic: Tumors at site or application.

Section 12 - Ecological Information

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation
Material in the elemental state should be recovered for reuse or recycling. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA
Proper Shipping Name: None
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

United States Regulatory Information
Listed: Yes
Demarcation: 1 %
Notes: This product is subject to SARA section 313 reporting requirements.

TSCA Inventory Item: Yes

Section 16 - Other Information

Warranty
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Sigma-Aldrich Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2002 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.
Material Safety Data Sheet

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Company: Sigma-Aldrich
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Section 2 - Composition/Information on Ingredients

Substance Name: SILVER
CAS #: 7440-22-4
SARA 313: Yes
Formula: Ag
Synonyms: Argentum, C.I. 77820, L-3, Shell silver, Silber (German), Silver (ACGIH/OSHA), Silver atom/Silver foil

Section 3 - Hazards Identification

HMIS Rating
Health: 0 Flammability: 0 Reactivity: 1
NFPA Rating
Health: 0 Flammability: 0 Reactivity: 1
For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
If swallowed, wash out mouth with water provided to conscious. Call a physician.

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

Dermal Exposure
In case of contact, immediately wash skin with soap and copious amounts of water.

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.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precautions(s)
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling
Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage
Suitable: Keep tightly closed. Store in a cool dry place.

Special Requirements
Aerosol sensitive.

Section 8 - Exposure Controls / PPE

Engineering Controls
Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment
Respiratory: NIOSH/MSHA-approved respirator.
Hand: Chemical-resistant gloves.
Eye: Chemical safety goggles.

General Hygiene Measures
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance
Physical State: Solid

Extinguishing Media
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting
Protective Equipment
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s)
For toxic fumes under fire conditions.

Section 10 - Other Information

Sigma-Aldrich Corporation
www.sigma-aldrich.com
### Molecular Weight

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### Section 10 - Stability and Reactivity

**Stability**
- Conditions to Avoid: Sensitive to air.
- Materials to Avoid: Oxygen, Strong acids, Strong bases.

**Hazardous Decomposition Products**
- Hazardous Decomposition Products: Silver(1) oxide.

**Hazardous Polymerization**
- Hazardous Polymerization: Will not occur.

### Section 11 - Toxicological Information

**Route of Exposure**
- Skin Contact: May cause skin irritation.
- Skin Absorption: May be harmful if absorbed through the skin.
- Eye Contact: May cause eye irritation.
- Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
- Ingestion: May be harmful if swallowed.

**Signs and Symptoms of Exposure**
- May cause argyria (a state-gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver).
- To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Section 12 - Ecological Information

### Section 13 - Disposal Considerations

**Appropriate Method of Disposal of Substance or Preparation**
- Material in the elemental state should be recovered for reuse or recycling.
- Observe all federal, state, and local environmental regulations.

### Section 14 - Transport Information

**DOT**
- Proper Shipping Name: None
- Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

**IATA**
- Proper Shipping Name: None
- Non-Hazardous for Air Transport: Non-hazardous for air transport.

### Section 15 - Regulatory Information

**United States Regulatory Information**
- Listed: Yes
- CERCLA: 1%
- Toxicological: Yes
- SARA section 313 reporting requirements.

### Section 16 - Other Information

**Warranty**
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