



SIGMA-ALDRICH

## Material Safety Data Sheet

Date Printed: 01/24/2002

Date Updated: 11/02/2000

Version 1.10

### Section 1 - Product and Company Information

**Product Name** SILVER, WIRE, 0.1MM DIAM., 99.9%  
**Product Number** 348783  
**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  
**Fax:** 800 325 5052

**Emergency Phone:** 414 273 3850 Ext. 5996

### Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>
SILVER	7440-22-4	Yes

**Formula** Ag  
**Synonyms** Argentum, C.I. 77820, L-3, Shell silver, Silber (German), Silver (ACGIH:OSHA), Silver atomSilver 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 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

### 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 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

##### User Exposure

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.

#### Exposure Limits, RTECS

<u>Country</u>	<u>Source</u>	<u>Type</u>	<u>Value</u>	<u>Remarks</u>
USA	MSHA Standard-air	TWA	0.01 MG/M3	
USA	OSHA.	PEL	8H TWA 0.01 MG(AG)/M3	
New Zealand	OEL			check ACGIH TLV
USA	NIOSH	TWA	0.01 MG/M3	

### Section 9 - Physical/Chemical Properties

#### Appearance

##### Physical State

Solid

Aldrich Chemical - 348783

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Molecular Weight: 107.87 AMU

<u>Property</u>	<u>Value</u>
pH	N/A
BP/BP Range	N/A
MP/MP Range	961 °C
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Partition Coefficient	N/A
Decomposition Temp.	N/A
Flash Point °F	N/A
Flash Point °C	N/A
Explosion Limits	N/A
Autoignition Temp	N/A
Solubility	N/A

## 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 Carcinogen

Rat - Multiple: 330 MG/KG 43W I

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application.

Rat - Implant: 2400 MG/KG

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application.

Mouse - Implant: 11 GM/KG

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application.

Rat - Implant: 2570 MG/KG

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: 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

Deminimis: 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.



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**Autoignition Temp:** N/A

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##### Suitable

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##### Suitable

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#### Special Requirements

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