

# SPI Supplies Division

Structure Probe, Inc.

P.O. Box 656 West Chester, PA 19381-0656 USA

Phone: 1-(610)-436-5400 Fax: 1-(610)-436-5755

[spi3spi@2spi.com](mailto:spi3spi@2spi.com)

<http://www.2spi.com>

Manufacturer's CAGE: 1P573

# Safety Data Sheet

Date Effective: March 19, 2013

SPI #01705-AC, 01705-BA, 01705-FA, 01705-MB

SPI Supplies® Brand Silver Wire

SPI # 14119-AB, 14123-AB, 14129-AB, 14152-AB,  
14163-AB Silver Cathodes

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## Section 1: Identification

Chemical Name/Synonyms.....Silver metal

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-527-3887

Worldwide FAX: 1-(703)-741-6090

Toll-free phone: 1-(800)-424-9300 USA only

CAS #'s.....7440-22-4

Chemical Formula.....Ag

Hazardous Material Information System USA

Health.....1

Fire Hazard.....0

Reactivity.....0

Personal Protection.....

NFPA Rating (estimated)

Health.....1

Flammability.....0

Reactivity.....0

### GHS Classification

None

### Hazard Symbol(s)



**Signal Word:** Warning

### Hazard Statement(s)

H320: Causes eye irritation

H316: Causes mild skin irritation

### Precautionary Statement(s)

None

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## Section 2: Composition

Component	CAS#	EC#	Percent
Silver	7440-22-4	231-131-3	100.0

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## Section 3: Hazard Identification

**Emergency overview:** No significant acute or chronic effects are known from exposure to platinum in solid form; however, in finely divided form mild adverse reactions may be observed.

**Target organs:** No known

**Physical Health Hazards:** In finely divided form platinum may cause the following: localized argyria and irritation on the skin, vomiting and abdominal pain, conjunctivitis and/or localized argyria irritation to the eye.

**Physical state:** Solid

**Color:** Silvery white

**Routes of exposure** Eye contact, ingestion, skin contact

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## Section 4: First Aid Measures

**Inhalation:** If signs and symptoms of toxicity are observed remove subject from contaminated area, administer oxygen and seek medical attention. Keep the subject warm and at rest. Perform artificial respiration if breathing has stopped.

**Skin:** Following repeated or prolonged contact, remove contaminated clothing, wash affected area with large quantities of water for at least five minutes. Seek assistance if necessary.

**Eyes:** Flush affected areas with water for at least 15 minutes. Seek medical assistance if necessary.

**Ingestion:** If subject is conscious, induce vomiting. If unconscious or convulsive, seek immediate medical attention.

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## Section 5: Fire Fighting Measures

**Flash Point:** Not available

**Autoignition:** Not available

**Lower Explosive Limit:** Not available

**Upper Explosive Limit:** Not Available

**Fire and Explosion Hazard:** Dust, powder and fumes are flammable or explosive when exposed to heat, flame, or by chemical reaction with oxidizing agents.

**Extinguishing Media:** Use dry powder, DO NOT use Water

**Special Fire Fighting Instructions:** Use self-contained breathing apparatus with full face piece operated in pressure demand or other positive pressure mode.

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## Section 6: Accidental Release Measures

**General Information:** Do not allow material to be released to the environment without proper government permits.

**Spills/Leaks:** Pick up mechanically. Transfer to glass or metal container for proper disposal or salvage.

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## Section 7: Handling and Storage

In solid form this material poses no special problems. Store metal in a dry area. Do not store adjacent to acids.

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## Section 8: Exposure Controls and Personal Protection

**Engineering Controls:** No further data

**Exposure Limits:**

Form	CAS#	ACGIH TLV	OSHA PEL
Silver (metal)	7440-22-4	1 mg/m <sup>3</sup> TWA	0.01 mg/m <sup>3</sup> TWA

**Ventilation:** Use mechanical local exhaust ventilation adequate to maintain airborne concentrations of all components and their decomposition products to within their respective OSHA PELs.

**Personal Protection**

**Eye:** Wear protection (safety glasses, dust proof goggles) adequate to prevent eye contact with this material.

**Skin:** Wear appropriate protective gloves and clothing for prolonged or repeated contact with finely divided material

**Respiratory:** If exposure levels exceed OSHA PELs wear a NIOSH/MSHA approved respirator having a protection factor appropriate to the airborne concentrations of the contaminant generated.

**Hygienic Practices:** To avoid ingestion of material, wash hands and face before eating, drinking, or consumption of tobacco

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## Section 9: Physical and Chemical Properties

**Physical State:** Solid

**Color:** silvery white

**Odor:** odorless

**Flash Point:** Not determined

**Explosive Limits:** Not determined

**Autoignition Point:** Not determined

**Boiling Point/Range 760 mm Hg:** 2212°C

**Water Solubility:** Insoluble

**Melting Point:** 961°C

**Vapor density (air = 1):** Not available

**Specific Gravity:** 10.5

**Evaporation Rate:** Solid - not applicable

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## Section 10: Stability and Reactivity

**Chemical Stability:** Decomposition will not occur if used and stored according to specifications.

**Incompatibility with Other Materials:** Acetylene, Acetone, Aluminum and Strong oxidizers

**Hazardous Decomposition of Products:** None known

**Dangerous Reactions:** None known

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## Section 11: Toxicological Information

Component	CAS#	RTECS#
Silver	7440-22-4	VW3500000

**Skin:** In powder form, an irritant

**Eyes:** In powder form, an irritant

**Sensitization:** Platinum salts may cause severe allergic reactions.

**Other information:** Tumorigenic effects have been observed on tests with laboratory animals.

Exposure to silver containing dusts or fumes may cause irritation, sensitization reactions and asthma. Cyanosis is possible. Chronic exposure may result in pulmonary fibrosis.

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## Section 12: Ecological Information

**General:** Do not allow material to be released to the environment without proper government permits.

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## Section 13: Disposal Considerations

**General:** Consult state, local or national regulations to ensure proper disposal. Disposal must be made according to official regulations.

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## Section 14: Transport Information

Not regulated

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## Section 15: Regulatory Information

**Note:** Observe the general safety regulations when handling chemicals. For use only by technically qualified individuals.

**TSCA:** Silver (CAS# 7440-22-4) listed on the TSCA Chemical Substance Inventory of Existing Chemical Substances.

### SARA Title III Notification and Information

**Reportable Quantity Pounds:** 1000

**SARA 313:** CAS# 7440-22-4 Silver

### State Information

**California Prop. 65:** Not listed

**Right to Know:** Silver (CAS# 7440-22-4) can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.

### Canada

**DSL/NDSL:** Silver (CAS# 7440-22-4) is on the DSL

**WHMIS:** Not available

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## Section 16: Other Information

### **Disclaimer of Liability:**

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues of fluids.

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