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PM Sales urges each customer or recipient of this SDS to study carefully to become aware of and understand the hazards associated with this product. The reader should consider consulting reference works or individuals that are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this SDS.

To promote safe handling, each customer or recipient should: 1) Notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this SDS and any other information regarding hazards or safety; 2) Furnish this same information to each of its customers for the product; and 3) Request its customers to notify their employees, customers, and other users of the product of this information.

## 1. PRODUCT AND COMPANY IDENTIFICATION

## **1.1 IDENTIFICATION**

Product name:	Silver (as metal)
	CAS# 7440-22-4
Chemical name:	Silver
Chemical family:	Silver
Formula:	Ag

## 1.2 **COMPANY IDENTIFICATION:**

Precious Metal Sales, Inc. 100 New Wood Road Watertown, CT 06795 860-274-8813

## **1.3 EMERGENCY TELEPHONE NUMBER**

24 hours a day: In case of spill, leak, exposure or accident - Call Chemtrec 800-424-9300. Number for non-emergency questions concerning SDS information 860-274-8813 Monday thru Friday 8am-5pm.

## 2. HAZARD IDENTIFICATION

## **EMERGENCY OVERVIEW**

**OSHA Hazards** 

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No known OSHA hazards

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

#### **HMIS Classification**

Health hazard: 0 Flammability: 0 Physical hazards: 0

#### **NFPA Rating**

Health hazard: 0 Fire: 0 Reactivity Hazard: 0

#### **Potential Health Effects**

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.
Ingestion	May be harmful if swallowed.

#### 3. COMPOSITION INFORMATION

Formula : Ag Molecular Weight : 107.87 g/mol

#### **Component(s)**

Amount (%)

Silver

<=100%

CAS-No. 7440-22-4 EC-No. 231-131-3

## 4. FIRST AID MEASURES

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration and seek medical attention.

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#### In case of skin contact

Wash off with soap and plenty of water.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Rinse mouth with water. Seek medical advice.

#### 5. FIRE FIGHTING MEASURES

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### 6. ACCIDENTAL RELEASE MEASURES

#### **Personal precautions**

Avoid dust formation. Avoid breathing vapors, mist or gas.

#### **Environmental precautions**

Do not let product enter drains. Collect residual material in suitable receptacles for recovery.

#### Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

#### 7. HANDLING AND STORAGE

#### **Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

#### **Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

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Components	CAS-No.	Value	Control parameters	Basis
Silver	7440-22-4	TWA	0.01 mg/m3	USA. Occupational Exposure Limits (OSHA) –
				Table Z-1 Limits for Air Contaminants
		TWA	0.01 mg/m3	USA. OSHA - TABLE Z-1 Limits
				for Air Contaminants - 1910.1000
		TWA	0.1 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Argyria			
		TWA	0.01 mg/m3	USA. OSHA - TABLE Z-1 Limits
				for Air Contaminants - 1910.1000
		TWA	0.01 mg/m3	USA. NIOSH Recommended Exposure Limits

#### Personal protective equipment

#### **Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### **Eye protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin and body protection

Lightweight protective clothing is sufficient.

#### Hygiene measures

General industrial hygiene practice. Wash hands after handling.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor : Solid Metal, Silver grey in color and odorless

<b>Density</b> $(H_2O=1)$ :	10.49 g/ml
<b>Boiling Point</b> (°F) :	3924 °F
Melting Point:	1763 °F

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Flammability: Not Flammable

Vapor Pressure (mm Hg) :N/A% Volatile by Volume :N/AVapor Density (air=1) :N/AEvaporation Rate :N/ASolubility in Water :N/ApH :N/A

## 10. STABILITY AND REACTIVITY

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: Will react with concentrated acids

Materials to avoid: Oxygen, Strong acids and strong bases

# 11. TOXICOLOGICAL INFORMATION Acute toxicity

Oral LD50	LD50 Oral - rat - male - > 5,000 mg/kg
Inhalation LC50	no data available
Dermal LD50	no data available
Other information on acute toxicity	y no data available

Skin corrosion/irritation	no data available
Serious eye damage/eye irritation	no data available
Respiratory or skin sensitization	no data available
Germ cell mutagenicity	no data available

## Carcinogenicity Carcinogenicity - rat - Unreported Tumorigenic:Tumors at site or application.

Carcinogenicity classification not possible from current data.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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Reproductive toxicity	no data available
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Teratogenicity no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)** no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)** no data available

Aspiration hazard no data available

#### **Potential health effects**

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

#### 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) on long time exposure

Synergistic effects no data available

Additional Information

**RTECS:** Not available

## 12. ECOLOGICAL INFORMATION

Toxicity	no data available
Persistence and degradability	no data available
<b>Bioaccumulative potential</b>	no data available
Mobility in soil	no data available
PBT and vPvB assessment	no data available
Other adverse effects	no data available

## **13. DISPOSAL CONSIDERATIONS**

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

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#### Contaminated packaging

Dispose of as unused product.

#### **14. TRANSPORT INFORMATION**

- **DOT (US)** Not dangerous goods
- IMDG Not dangerous goods
- IATA Not dangerous goods

#### **15. REGULATORY INFORMATION**

**OSHA Hazards** No known OSHA hazards

#### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

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#### SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

Silver, CAS-No. 7440-22-4, Revision Date 1993-04-24

**Pennsylvania Right To Know Components** Silver, CAS-No. 7440-22-4, Revision Date 1993-04-24

**New Jersey Right To Know Components** Silver, CAS-No. 7440-22-4, Revision Date 1993-04-24

#### California Prop. 65 Components

This product does not contain any chemicals known to cause cancer, birth defects, or any other reproductive harm.

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#### **16 OTHER INFORMATION**

The information, recommendations and suggestions herein are believed to be reliable. However, it is the user's responsibility to determine the safe handling and suitability for his/her use of the product described herein. Since the use by others is outside our control, no guarantee, expressed or implied, is made by Precious Metal Sales, Inc. as to the effects of such use, the results obtained or the safety and toxicity of the product nor does PM Sales per se assume any liability arising out of use, by others of the product referred to herein. Nor is the information herein to be construed as absolutely complete since more information may be desirable or necessary when particular or exceptional circumstances exist, or because of applicable laws or government regulations.

End of SDS