



## Silver (Pellets, Sputtering Targets)

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**1. Product Identification**

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Trade Name: Silver pellets  
Chemical Formula: Ag  
Recommended Use: Scientific research and development

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**2. Hazards Identification**

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Signal Word: Not classified in provided form  
Hazard Statements: Not classified in provided form  
Precautionary Statements: Not classified in provided form  
HMIS Ratings (0-4):  
    Health: 0  
    Flammability: 0  
    Reactivity: 0

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**3. Composition**

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Chemical Family: Metal  
Additional Names: None  
Silver (Ag):  
    Percentage: 100 wt%  
    CAS #: 7440-22-4  
    EC #: 231-131-3

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**4. First Aid Procedures**

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General Treatment: Seek medical attention if symptoms persist.  
Special Treatment: None  
Important Symptoms: None  
  
Inhalation: Remove victim to fresh air. Supply oxygen if breathing is difficult.  
Ingestion: Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.  
  
Skin: Wash affected area with mild soap and water. Remove any contaminated clothing.  
  
Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

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### 5. Firefighting Measures

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Flammability:	Non-flammable
Extinguishing Media: Spec. Fire Fighting Procedure:	Do not use water for metal fires – use CO <sub>2</sub> , sand, extinguishing powder. Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

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### 6. Accidental Release Measures

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If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

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### 7. Handling and Storage

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Handling Conditions: Storage Conditions:	Wash thoroughly after handling. Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

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### 8. Exposure Controls and Personal Protection

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Permissible Exposure Limits: Threshold Limit Value:	0.01 mg/m <sup>3</sup> as Ag metal and soluble compounds, long-term value 0.1 mg/m <sup>3</sup> as Ag metal: dust and fume, long-term value
Special Equipment:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

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### 9. Physical and Chemical Characteristics

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Color	Silver-colored
Form:	Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	2210 °C
Melting Point:	961.8 °C
Flash Point:	N/A
Autoignition Temperature:	N/A

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Density: 10.5 g/cc  
Molecular weight: 107.868 g/mol

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### 10. Reactivity

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Stability: Stable under recommended storage conditions  
Reacts With: Oxidizing agents  
Incompatible Conditions: None  
Hazardous Decomposition Products: Silver Oxides, Metal oxide fume

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### 11. Toxicological Information

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Potential Health Effects:  
Eyes: May cause irritation  
Skin: May cause irritation  
Ingestion: May cause irritation  
Inhalation: May cause irritation  
Chronic: N/A

Signs & Symptoms: N/A  
Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: N/A

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### 12. Ecological Information

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Aquatic Toxicity: Not available in provided form  
Persistent Bioaccumulation Toxicity: No  
Very Persistent, Very Bio accumulative: No  
Notes: May cause long lasting harmful effect on aquatic life.  
Do not allow material to be released to the environment without proper governmental permits.  
Do not allow product to reach any water sources.  
Danger to drinking water if even extremely small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Do not allow large quantities to reach ground water, water course or sewage system.  
Avoid transfer into the environment.

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### 13. Disposal Considerations

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Dispose of in accordance with local, state, national, and international regulations.

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### 14. Transportation Data

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Hazardous:	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).
Hazard Class:	Not classified. No transport warning sign required.
Packing Group:	Not applicable
UN Number:	Not applicable
Proper Shipping Name:	Not applicable

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### 15. Regulatory Information

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Sec 302 Extremely Hazardous: CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)	None of the ingredients are listed or exempt Final CERCLA RQ: 1000 lbs
Sec 313 Toxic Chemicals:	None of the ingredients are listed or exempt

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### 16. Other Information

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This safety data sheet should be used in conjunction with technical sheets. It does not replace them. **No warranty, guarantee or representation is made to its accuracy, reliability or completeness.** These materials should only be handled by, or under the direct supervision of a “technically qualified individual”, as defined in TSCA regulations 40 CFR 710.3(ee). The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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