



Material Safety Data Sheet

Product No. 61-310 Silver Powder, 7-15µm

Issue Date (10-02-01)

Review Date (04-12-12)

Section 1: Product and Company Identification

Product Name: Silver Powder, 7-15µm

Synonym: None

Company Name

Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477

Domestic Phone (800) 237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

International Phone (01) (530) 243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Chemtrec Emergency Number 1-800-424-9300 24 hrs a day.

Section 2: Composition / Information on Ingredients

Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)	%	OSHA PEL mg/m³	ACGIH TLV mg/m³	NTP	IARC	OSHA regulated
Silver (7440-22-4)	99.9	0.01	0.1	No	No	No

Section 3: Hazard Identification

Emergency overview

Appearance: Silver powder.

Immediate effects: Irritant. Depending upon entry contact refer to Potential health effects.

Potential health effects

Primary Routes of entry: Inhalation, skin, eyes, ingestion.

Signs and Symptoms of Overexposure: Exposure to silver may produce argyria, a permanent blue-gray discoloration of the skin, eyes, mucous membranes, and the respiratory tract.

Eyes: Exposure of the eyes to this material in powder form may produce localized argyria and/or irritation

Skin: Skin contact with this material in solid forms is not known to be hazardous. In finely divided form, skin contact may produce localized irritation, skin discoloration, and/or contact dermatitis.

Ingestion: Ingestion of this material in finely divided form may produce vomiting, abdominal pain, and/or collapse.

Inhalation: Acute inhalation exposure to silver may produce argyria, a permanent blue-gray discoloration of the skin, eyes, mucous membranes, and the respiratory tract.

Chronic Exposure: Exposure to silver may produce argyria, a permanent blue-gray discoloration of the skin, eyes, mucous membranes, and the respiratory tract. Chronic

ingestion of silver can similarly lead to an accumulation of silver in the eye (argyrosis) and in other organs

Chemical Listed As Carcinogen Or Potential Carcinogen: No

See Toxicological Information (Section 11)

Potential environmental effects

See Ecological Information (Section 12)

Section 4: First Aid Measures

If accidental overexposure is suspected

Eye(s) Contact: Flush affected areas with water for at least 15 minutes. Seek medical assistance if necessary.

Skin Contact: Following repeated or prolonged contact, remove contaminated clothing. Wash affected area with large quantities of water at least 5 minutes. Seek

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.

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

Note to physician

Treatment: NIF

Medical Conditions generally Aggravated by Exposure: Pre-existing pulmonary disease (E.G. dermatitis) may be aggravated by sustained dermal exposure to this material in finely divided form.

Section 5: Fire Fighting Measures

Flash Point: NA

Flammable Limits: NA

Auto-ignition point: NA

Fire Extinguishing Media: Use dry powder. Do not use water

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

Unusual Fire and Explosion Hazards: In finely divided form, this material may react vigorously or ignite when exposed to incompatible materials. Explosions or fires involving this material may release potentially toxic emissions.

Hazardous combustion products: Unknown

DOT Class: 9

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: Avoid dust formation. Clean up spilled material so as to minimize dispersion of dust. Wet sweeping or vacuuming using HEPA filtration is recommended methods. Can be collected and reclaimed.

Waste Disposal Methods: Dispose of waste according to Federal, State and Local Regulations.

Section 7: Handling and Storage

Precautions to be Taken in Handling and Storage: Keep container dry. Keep container tightly closed. Do not store in proximity to incompatible materials.

Storage temperature: Room temperature.

Storage Pressure: NA

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: Use mechanical local exhaust ventilation adequate to maintain airborne concentrations within their respective OSHA PEL.

Personal Protection Equipment

Respiratory protection: Suitable dust mask.

Protective gloves: Wear gloves when handling

Skin protection: Lab coat or other clothing as required.

Eye protection: Splash goggles, or face shield

Additional clothing and/or equipment: NIF

Exposure Guidelines

See Composition/Information on Ingredients (Section2)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Grey white metal powder.

Odor (threshold): NA

Specific Gravity (H₂O=1): 10.5

Vapor Pressure (mm Hg): NA

Vapor Density (air=1): NA

Percent Volatile by volume: NA

Evaporation Rate (butyl acetate=1): NA

Boiling Point: 4014 °F (2212 °C)

Freezing point / melting point: 1764 °F (962 °C)

pH: NA

Solubility in Water: Insoluble

Molecular Weight: 107.87

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Avoid incompatible materials.

Materials to Avoid (Incompatibility): Acetylene, ammonia, nitric acid, ethyleneimine, chlorine trifluoride, sulfuric acid, inorganic and organic peroxides, peroxyformic acid, bromoazide, oxalic acid, 1-bromo-2-propyne, tartaric acid, permonosulfuric acid.

Hazardous Decomposition Products: Heating to elevated temperatures may volatilize silver as fume.

Hazardous Polymerization: Does not occur.

Section 11: Toxicological Information

Results of component toxicity test performed: Acute oral toxicity, Mouse (LD50): 100 mg/kg

Human experience: Very hazardous in case of ingestion and inhalation.

This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information

Ecological Information: NA

Chemical Fate Information: NA

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: Waste code: D011

Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

Section 14: Transportation Information

US DOT Information: Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Silver powder 7-15 µm)

Hazard Class: 9

Packaging group: III

UN Number: UN3077

IATA: Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Silver powder 7-15 µm)

Hazard Class: 9

Packing group: III

UN Number: UN3077

Marine Pollutant: No

Canadian TDG: NIF

Section 15: Regulatory Information

United States Federal Regulations

MSDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.

SARA: Section 302: None

SARA Title III: Section 313: Silver (CAS-No. 7440-22-4). Section 311/312: None

RCRA: Waste code: D011

TSCA: Listed

CERCLA: Reportable Quantity (RQ): 1000 lbs (454 kg)

State Regulations

California Proposition 65: None

International Regulations

Canada WHMIS: NIF

Europe EINECS Numbers: 231-131-3

Section 16: Other Information

Label Information: Acute inhalation and eye exposure risk.

European Risk and Safety Phrases: ND

European symbols needed: ND

Canadian WHMIS Symbols: ND

HMIS® Hazard Rating: Health: **2**; Fire: **1**; Reactivity: **0**

(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Abbreviations used in this document

NE= Not established

NA= Not applicable

NIF= No Information Found

ND= No Data

Disclaimer

Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.