



Material Safety Data Sheet

Product No. 16035 Leitsilber 200 Conductive Paint

Issue Date (05-25-11)

Review Date (05-04-12)

Section 1: Product and Company Identification

Product Name:

Synonym: Conductive Silver Paint L200N

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/m ³	ACGIH TLV mg/m ³	NTP	IARC	OSHA regulated
Carbohydrate/ (derivative of) Cellulose (ND)	ND	ND	ND	No	No	No
Silver (7440-22-4)	30-50	0.1	0.1	No	No	No
1-Ethoxypropan-2-ol (52125-53-8, 1569-02-4)	20-30	220	220	No	No	No
Ethanol (64-17-5)	12.5-20	960	960	No	No	No
Acetone (67-64-1)	5-7	1200	1200	No	No	No
Ethyl acetate (141-78-6)	1-3	1500	1500	No	No	No

Section 3: Hazard Identification

Emergency overview

Appearance: Silver liquid

Immediate effects: Irritating, vapors may cause drowsiness and dizziness.

Highly Flammable

Potential health effects

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

Signs and Symptoms of Overexposure: Drowsiness and dizziness.

Eyes: Irritant

Skin: Irritant

Ingestion: Aspiration hazard

Inhalation: Irritant. Drowsiness and dizziness may occur.

Chronic Exposure: ND

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: Rinse thoroughly immediately with plenty of water for at least 10 minutes, keeping eyelids open. Consult an ophthalmologist.

Skin Contact: Upon skin contact, wash with soap and plenty of water. Remove contaminated or saturated clothing.

Inhalation: Take affected persons out into the fresh air.

Ingestion: Have patient drink plenty of water in small sips. Do not force patient to vomit.

Aspiration Hazard. Supply with medical care.

Note to physician

Treatment: ND

Medical Conditions generally Aggravated by Exposure: ND

Section 5: Fire Fighting Measures

Flash Point: 12.0°C (DIN 51755, Part 1)

Flammable Limits: Lower: 1.3% Vol. Upper: 19.0% Vol.

Auto-ignition point: ND

Fire Extinguishing Media: Water spray or mist (DO NOT use water full jet), special quenching powder, quenching foam (use large amounts of foam as it will be partially destroyed), carbon dioxide.

Unusual Fire and Explosion Hazards: Danger of explosion with fire.

Hazardous combustion products: Do not inhale explosive gases or smoke fumes: carbon dioxide, carbon monoxide, nitrogen oxides.

DOT Class: Flammable

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: Remove all sources of ignition if safe to do so. Keep person at a distance and stay away from fumes. Wear personal protective equipment (see Section 8). Absorb with liquid-binding material (sand, infusorial earth inert absorbent). If you feel unwell, seek medical advice immediately.

Prevent penetration into soil, stretches of water and drainage systems.

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: The product should be handled by trained personnel. Keep container tightly closed and store in a dry, well-ventilated place.

Ensure suitable suction/aeration at the work place and with operational machinery (Fume hood). Highly volatile substances may be released during processing, therefore avoided sources of ignition. Do not empty into drains. No smoking. Avoid exposure. Obtain special instructions before use. If there is a danger of exceeding the explosion limits, keep container tightly closed and store in a dry, well-ventilated place. Take precautionary measure against static discharges. Product is slightly water-polluting.

Storage temperature: Room temperature.

Storage Pressure: ND

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: Use in fume hood.

Personal Protection Equipment

Respiratory protection: Use in a well ventilated area.

Protective gloves: Wear protective glove of solvent resistant material (if handling large amounts).

Skin protection: Preventative skin protection.

Eye protection: Wear safety goggles with side shield (if handling large amounts).

Additional clothing and/or equipment: NIF

Exposure Guidelines

See Composition/Information on Ingredients (Section2)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Silver fluid.

Odor (threshold): Characteristic.

Specific Gravity (H₂O=1): 1.44 g/cm³ at 20°

Vapor Pressure (mm Hg): >1,000-1,750 hPa (50° C)

Vapor Density (air=1): ND

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND

Boiling Point: Range, 56° to 132° C

Freezing point / melting point: ND

pH: ND

Solubility in Water: Soluble (solvents)

Molecular Weight: NA

Section 10: Stability and Reactivity

Stability: Stable (but if container left open at room temperature or above, it will lose solvents by evaporation).

Conditions to Avoid: When heated above flashpoint and/or with spraying or atomization, a flammable mixture may form with air.

Materials to Avoid (Incompatibility): Strong oxidizing agents

Hazardous Decomposition Products: Carbon dioxides and monoxides, nitrogen oxides. Smoke.

Hazardous Polymerization: None known

Section 11: Toxicological Information

Results of component toxicity test performed:

	Ethanol	Acetone	Ethyl acetate
LD50, Oral, rat:	6200 mg/kg	5800 mg/kg	5620 mg/kg
LC50, Inhale, rat:	>8000 mg/L/4Hr	76 mg/L/4Hr	1600 mg/L/8Hr
LD50, Dermal, rabbit:	>20000 mg/kg	20000 mg/kg	>18000 mg/kg

Human experience: To date handling this product has not been known to cause any detrimental effects. Sensitization: None known

Specific information referring to silver powder: After long term effect due to inhalation or swallowing appearance of pigmentation (Argyrosis) of skin and mucous membrane (eyes, respiratory system) is possible. This alteration of the skin is permanent, it is no toxic damage in the sense of contamination.

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: Behavior in environmental compartments: Product is slightly water polluting.

Information of components is given below:

	Ethanol	Acetone	Ethyl acetate
LC50, Fish:	8140 mg/L / 48 Hr	8300 mg/L/ 96 Hr	270 mg/L
EC50, Daphnia:	>9268 mg/L/ 48 Hr	12600 mg/L/ 48 Hr	2306 mg/L/ 24 Hr

Chemical Fate Information: Data for elimination (persistence or degradability): ND

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: Look for community provisions relating to waste. National or regional provisions may be in force. No waste code number in accordance with the European waste catalogue can be specified for this product since it can only be categorized on the basis of its use by the consumer. The waste code number is to be put on by arrangement with the disposal contractor, manufacturer or authority. Product contains precious metals. For proper recovery, return to recyclers.

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: Paint

Hazard Class: 3

Packaging group: II

UN Number: UN1263

IATA: Proper shipping name: Paint

Hazard Class: 3

Packing group: II
UN Number: UN1263
IMO: Proper shipping name: Paint
Class: 3
UN Number: UN1263
Packing group: II
Marine Pollutant: None
Canadian TDG: Proper shipping name: Paint

Section 15: Regulatory Information

United States Federal Regulations

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

SARA: ND

SARA Title III: ND

RCRA: ND

TSCA: Components are listed

CERCLA: ND

Silver ϕ (particles of metal less than 100 micron diameters), RQ: 1000 LBS (454 Kg)

State Regulations

California Proposition 65: WARNING: This product contains a chemical(s), known to the State of California to cause birth defects or other reproductive harm. Ethyl alcohol.

International Regulations

Canada WHMIS: ND

Europe EINECS Numbers: ND

Section 16: Other Information

Label Information: Irritating, highly flammable.

European Risk and Safety Phrases: R10, R11, R36, R66, R67, S9, S16, S33, S60

European symbols needed: Xi, F

Canadian WHMIS Symbols: ND

HMIS® Hazard Rating: Health: **1**; Flammability: **3**; Physical Hazard: **0**; Personal Protection: See Section 8.

(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.

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