

Safety Data Sheet

Product No. 16035 Leitsilber 200 Conductive Paint

Issue Date (04-26-13)

Review Date (11-6-15)

Section 1: Product and Company Identification

Product Name: 16035 Leitsilber 200 Conductive Paint

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: Hazard Identification

2.1 Classification of the substance or mixture

GHS Pictograms



GHS02



GHS07



GHS09

GHS Categories

GHS02 – Flammable

Flam. Liq. 2

H225: Highly flammable liquid and vapor.

GHS07 – Irritant

STOT, SE 3 (Central Nervous Sys.)

H336: May cause drowsiness or dizziness.

GHS09 – Environment

Acute Aq. Tox. 1

Chronic Aq. Tox. 1

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long-lasting effects.

2.2 Label elements

Hazard Pictograms



Signal Word: Danger

Hazard Statements

H225 Highly flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P273 Avoid release to the environment.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

2.3 Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Health Effects:

NFPA Hazard Rating: Health: 1; Fire: 3; Reactivity: ND

HMIS® Hazard Rating: Health: 1; Fire: 3; Reactivity: ND

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

Results of PBT and vPvB assessment:

PBT: See section 2.3

vPvB: See section 2.3

Emergency overview:

Appearance: Silver liquid

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

Potential health effects

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

Signs and Symptoms of Overexposure: Headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects.

Solvents may degrease the skin.

Eyes: According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

Skin: According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

Ingestion: Aspiration hazard.

Inhalation: Respiratory 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 3: 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 Carcinogen	IARC Carcinogen	OSHA regulated Carcinogen
Silver (7440-22-4) H400; H410	25-50	0.1	0.1	No	No	No
1-Ethoxypropan-2-ol (1569-02-4; 52125-53-8) H226; H336	20- <25	220	220	No	No	No
Ethanol (64-17-5) H225	10- <20	960	960	No	No	No
Collodion wool, dissolved (9004-70-0) H225	<10	ND	ND	No	No	No
Acetone (67-64-1) H225; H319; H336	3- <10	1200	1200	No	No	No
Ethyl acetate (141-78-6) H225; H319; H336	1-<3	1500	1500	No	No	No

Section 4: First Aid Measures

If accidental overexposure is suspected

Eye(s) Contact: Flush eyes with water as a precaution. Remove contact lenses.

Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

Skin Contact: Take off contaminated clothing and shoes immediately. Wash off soap and plenty of water.

Inhalation: Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.

Ingestion: Clean mouth with water and drink afterwards plenty of water. Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Note to physician

Treatment: The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

Medical Conditions generally Aggravated by Exposure: ND

Section 5: Fire Fighting Measures

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

Flammable Limits: ND

Auto-ignition point: ND

Fire Extinguishing Media: Alcohol-resistant foam, carbon dioxide (CO₂), dry chemical. NO NOT USE high volume water jet.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus. Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. Do not allow run-off from fire-fighting to enter drains or water courses.

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

Hazardous combustion products: None known.

DOT Class: Flammable

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled:

Personal precautions: Ensure adequate ventilation. Remove all sources of ignition.

Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Material can create slippery conditions.

Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to governmental regulations (see section 13).

Keep in suitable, closed containers for disposal.

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:

Handling:

Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Container may be opened only under exhaust ventilation hood. Dispose of rinse water in accordance with local and national regulations. Keep away from sources of ignition. No smoking.

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Remove contaminated clothing and protective equipment before entering eating areas.

Storage: No smoking. Store in cool place. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations/working materials must comply with the technological safety standards.

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: In case of vapor formation use a respirator with an approved filter.

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

Skin protection: Protective clothing with antistatic properties. Proper foot protection. Choose body protection according to the amount and concentration of the substance in the workplace.

Eye protection: Wear closed safety visors; do not use lenses. Wear single frame goggles.

Exposure Guidelines

See Composition/Information on Ingredients (Section 3)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Silver liquid.

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): ND

Freezing point / melting point: ND

pH: ND

Solubility in Water: Soluble

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: Heat, flames and sparks. Vapors may form explosive mixture with air.

Materials to Avoid (Incompatibility): Strong oxidizing agents.

Hazardous Decomposition Products: No decomposition if stored and applied as directed.

Hazardous Polymerization: None known.

Section 11: Toxicological Information

Results of component toxicity test performed:

Human experience: ND

Sensitization: None known.

Specific information referring to silver powder: The long-term effect of inhalation or swallowing is the possible appearance of pigmentation (Argyrosis) of skin and mucous membrane (eyes, respiratory system). This alteration of the skin is permanent, but is not considered to be 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.

Ecotoxicity Information:

Acetone

LC50 (fish) 4.74 mg/l (96 h)

EC50 (Daphnia) 10,294 mg/l (48 h)

Ethyl acetate

LC50 (fish) 220 mg/l (96 h)

EC50 (Daphnia) 560 mg/l (48 h)

EC50 (algae) 3,300 mg/l (48 h)

Ethanol

LC50 (fish) 12 mg/l (96 h)

EC50 (Daphnia) 9,268 mg/l (48 h)

Chemical Fate Information: ND

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: None

Waste Treatment Methods

Product: The product should not be allowed to enter drains, water courses or the soil.

Do not contaminate ponds, waterways or ditches with chemical or used container.

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

Send to a licensed waste management company.

Contaminated packaging: Empty remaining contents. Dispose of as unused product.

Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

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: Flammable liquid, n.o.s. (ethanol, silver)

Hazard Class: 3

Packaging group: II

UN Number: UN1993

IATA: Proper shipping name: Flammable liquid, n.o.s. (ethanol, silver)

Hazard Class: 3

Packing group: II

UN Number: UN1993

IMO: Proper shipping name: Flammable liquid, n.o.s. (ethanol, silver)

Class: 3

UN Number: UN1993

Packing group: II

Marine Pollutant: None listed.

Canadian TDG: Flammable liquid, n.o.s. (ethanol, silver)

Section 15: Regulatory Information

United States Federal Regulations

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

SARA: Not listed.

SARA Title III: Not listed

RCRA: None

TSCA: All components are listed.

CERCLA: Silver ϕ (particles of metal less than 100 micron diameters), RQ: 1000 LBS (454 Kg). Ethanol is listed. Acetone is listed. Ethyl Acetate is listed.

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 (as an alcoholic beverage only).

International Regulations

Canada WHMIS: ND

Europe EINECS Numbers: ND

Section 16: Other Information

Label Information: Irritant, Flammable

European Risk Phrases: R10, R11, R36, R50/53, R66, R67

European symbols needed: Xi, F, N

Canadian WHMIS Symbols: ND

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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