

## Safety Data Sheet

**Product No. 16052 Conductive Silver Grease**

**Issue Date (04-28-14)**

**Review Date (08-31-17)**

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### Section 1: Product and Company Identification

**Product Name: Conductive Silver Grease**

Synonym: None

**Company Name**

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

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

Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

**CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day**

**CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day**

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### Section 2: Hazard Identification

#### 2.1 Classification of the substance or mixture

**Environmental Hazard Chronic Aqua. Tox. Category 1**

#### GHS Pictograms



GHS09

#### GHS Categories

GHS09 – Environment

Chronic Aqua. Tox. 1

H411: Toxic to aquatic life with long-lasting effects

#### 2.2. Label elements

#### Hazard Pictograms



GHS09

**Signal Word: Warning**

#### Hazard statements:

H411 Toxic to aquatic life with long lasting effects.

#### Precautionary statements:

P273 Avoid release to the environment.

P391 Collect spillage.

P501 Dispose of contents/container in accordance to local/regional/national/international regulations.

### 2.3. Other hazards

Carbon black normally carries a D2A carcinogenic warning (Carcinogen IARC: 2B) with respect to dust inhalation. But because the carbon black is inextricably bound in the grease matrix and the respirable form cannot be generated, it is not included in section 54 of the CPR.

Uses Advised Against: Avoid extreme uses that could result in aerosolization

Warning [Argyria Hazard]: Prolonged or repeated exposure by ingestion or inhalation can cause an irreversible blue-grey skin discoloration.

**Health Effects:** Prolonged or repeated exposure by ingestion or inhalation can cause an irreversible blue-grey skin discoloration.

NFPA Hazard Rating: Health: 1; Flammability: 1; Reactivity: 0

HMIS® Hazard Rating: Health: 1; Flammability: 1; Physical Hazard: 0

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

**Warning [Argyria Hazard]:** Prolonged or repeated exposure by ingestion or inhalation can cause an irreversible blue-grey skin discoloration.

### Emergency overview

Appearance: Dark gray liquid

Immediate effects: ND

### Potential health effects

Primary Routes of entry: Eyes, ingestion, inhalation, and skin.

Signs and Symptoms of Overexposure: ND

Eyes: Mild irritation (discomfort), mechanical irritation

Skin: No effects known.

Ingestion: None known

Inhalation: Unlikely route of entry under normal usage.

Chronic Exposure: ND

Chemical Listed As Carcinogen Or Potential Carcinogen: None Listed

See Toxicological Information (Section 11)

### Potential environmental effects

See Ecological Information (Section 12)

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### Section 3: 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)	61-67	0.01	0.1	No	No	No
Dimethylpolysiloxane <sup>a)</sup> (63148-62-9)	30-34	NE	NE	No	No	No
Carbon Black** (1333-86-4)	3-5	3.5	3.5	No	No	No

\*As metal dust, mist

\*\* Respirable airborne particles

a) Non-hazardous component

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#### **Section 4: First Aid Measures**

##### **If accidental overexposure is suspected**

Eye(s) Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin Contact Clean with soap and water.

Inhalation Remove person to fresh air (out of the contaminated zone) and keep comfortable for breathing.

Ingestion Do not induce vomiting. Seek medical attention if feeling unwell.

##### **Note to physician**

Treatment: ND

Medical Conditions generally Aggravated by Exposure: ND

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#### **Section 5: Fire Fighting Measures**

Flash Point: >300 °C [572 °F]

Flammable Limits: NA

Auto-ignition point: NA

Fire Extinguishing Media: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.

Wear self-contained breathing apparatus for firefighting.

Special Fire Fighting Procedures: At temperatures of 300 °C [150 °F] and above, formaldehyde can be generated in the presence of oxygen. Formaldehyde is classified as a human carcinogen, skin sensitizer, respiratory sensitizer, and eye and throat irritant.

Prevent fire-fighting wash from entering waterway or sewer system.

Unusual Fire and Explosion Hazards: None known.

Hazardous combustion products: Produces carbon oxides (CO, CO<sub>2</sub>) SiO<sub>2</sub> and formaldehyde.

DOT Class: 9

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#### **Section 6: Accidental Release Measures**

Steps to be Taken in Case Material is Released or Spilled: The material presents a slip hazard and must be cleaned thoroughly. Scoop the paste into the container. Wipe up further residue with paper towel and place dirty towels in container. Wash spill area with steam, solvents, or detergents to remove the last traces of residue.

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

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#### **Section 7: Handling and Storage**

Precautions to be taken in Handling and Storage:

**Handling** Wear protective gloves/eye protection. Avoid release to the environment. Collect spillage. Do not get in eyes, on skin, or on clothing.

**Storage** Keep in a dry and clean area, away from incompatible substances.

**Storage temperature** ND

**Storage Pressure** NA

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#### **Section 8: Exposure Controls / Personal Protection**

##### **Engineering Controls**

**Ventilation required:** Normal ventilation is adequate. The carbon black particles are bound in the grease matrix and are not available as a respiration hazard under normal conditions. If the product is exposed to extreme heat or combustion conditions, see the advice in the respiratory protection subsection.

## Personal Protection Equipment

**Respiratory protection** If exposed to mist, wear oil resistant or oil proof particulate respirators or filter masks. If the product is exposed to extreme heat or combustion conditions, wear a NIOSH approved self-contained breathing apparatus (SCBA) or supplied air respirator.

**Protective gloves** Wear protective gloves.

**Skin protection** Wear appropriate protective clothing.

**Eye protection** Wear safety glasses with side shields.

**Additional clothing and/or equipment:** ND

## Exposure Guidelines

See Composition/Information on Ingredients (Section3)

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## Section 9 Physical and Chemical Properties

Appearance and Physical State: Liquid/paste, silvery dark grey

Odor (threshold): None (NA)

Specific Gravity (H<sub>2</sub>O=1): 2.29

Vapor Pressure (mm Hg) @20 °C: 0.13 kPa (1 mmHg)

Vapor Density (air=1): >1

Percent Volatile by volume: NA

VOC (Regulated Volatile Organic Content) = 31%

Evaporation Rate (butyl acetate=1): <1

Boiling Point: >200°C (>392°F)

Freezing point / melting point: NA

pH: NA

Solubility in Water: Insoluble

Viscosity @40 °C: ≥34 mm<sup>2</sup>/s

Molecular Weight: NA

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## Section 10: Stability and Reactivity

Stability: Stable at normal temperatures and pressures.

Conditions to Avoid: Excessive heat and incompatible substances.

Materials to Avoid (Incompatibility): Strong oxidizing agents, acids, strong bases, ammonia, acetylene, hydrogen peroxide.

Hazardous Decomposition Products: Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5.

Hazardous Polymerization: Will not occur.

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## Section 11: Toxicological Information

Results of component toxicity test performed:

### Silver

Ingestion LD50 (Guinea pig): > 5 gm/kg,

### Dimethylpolysiloxane

Ingestion LD50 (Rat): > 5,000 mg/kg

Inhalation LD50: NE

Skin LD50 (Rabbit): >10,000 mg/Kg

Inhalation (TCLo): NE

### Carbon Black

Ingestion LD50 (Rat): >15 g/kg

Inhalation LD50 (Rat): NE

Skin LD50 (Rabbit): >3 g/kg.

Sensitization (effects of repeated exposure): NA

Carcinogenicity: The carbon black [1333-86-4] is possibly carcinogenic by airborne routes of exposures. Because the carbon black is bound in the highly viscous grease matrix, it is not expected to be available as an airborne hazard (dust, mist, or spray) under normal and emergency uses.

Human experience: ND

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

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## **Section 12: Ecological Information**

Ecological Information: Not readily biodegradable.

Chemical Fate Information: ND

The IMDG Code criteria and the raw-material MSDS along with supporting data for the classification of registered substances from the European Chemical Agency database (echa.europa.eu) were used.

Contains silver particles less than a 1 mm in size but >100 nm (larger than nanoparticles), which are very toxic to the environment in their ionic form. While both are insoluble in water, classification is being harmonized to EU classification.

The polydimethyl siloxane fluid and carbon black are not classifiable as ecotoxic hazards under GHS criteria.

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## **Section 13 Disposal Considerations**

RCRA 40 CFR 261 Classification: ND

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

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## **Section 14: Transportation Information**

US DOT Information: Proper shipping name:

BULK: Environmentally Hazardous Substance Liquid, N.O.S. (Silver powder)\*

Hazard class: 9

Packing group: III

UN Number: UN3077

\*Sizes 30 g /30 mL and under, Excepted Quantity Document as class E1

Sizes 5 liter and under: Limited Quantity

IATA: Proper shipping name: Environmentally Hazardous Substance Liquid, N.O.S. (Silver powder)\*

Hazard class: 9

Packing group: III

UN Number: UN3077

Limited quantity: 30 kg

\*Sizes 30 g /30 mL and under, Excepted Quantity Document as class E1. Refer to Package Mark 2.6.7.1 in IATA for further instruction.

IMDG: Proper shipping name: Environmentally Hazardous Substance Liquid, N.O.S. (Silver powder)\*

Hazard class: 9

Packing group: III

UN Number: UN3077

Limited quantity: 5 kg

\*Sizes 30 g /30 mL and under, Excepted Quantity Document as class E1

Canadian TDG:

Sizes 30 g /30 mL and under:

Excepted Quantity Document as class E1 Refer to Package Mark 2.6.7.1 in IATA for further instruction.

Sizes greater than 5 liter:

Proper shipping name: Environmentally Hazardous Substance, Solid, N.O.S. (silver powder)

Hazard Class: 9

Packing Group: III  
Marine Pollutant: Not listed in 49CFR

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## **Section 15: Regulatory Information**

### **United States Federal Regulations**

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

CAA (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain any chemicals listed as hazardous air pollutants.

SARA: This substance contains no reportable quantity.

SARA Title III: This substance contains no reportable quantity.

RCRA: ND

TSCA: All substances are TSCA listed.

CERCLA: Silver, RQ: 1000 lbs (454 Kg). The RQ for these hazardous substances is limited to those pieces of the metal having a diameter smaller than 100 micrometers (0.004 inches).

### **State Regulations**

California Proposition 65: This product does not contain any chemicals listed.

### **International Regulations**

Canada WHMIS: D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

DSL: All ingredients in this product are listed on the Domestic Substances List

Europe EINECS Numbers: ND

RoHS: This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, and complies with European RoHS regulations.

WEEE: This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

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## **Section 16: Other Information**

Label Information: May cause eye irritation, Keep out of reach of children.

European Risk and Safety Phrases: ND

European symbols needed: ND

Canadian WHMIS Symbols: ND

### **Abbreviations used in this document**

NE= Not established

NA= Not applicable

NIF= No Information Found

ND= No Data

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## **Disclaimer**

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