



## Material Safety Data Sheet

**Product No. Carbon and Graphite Products**

**Issue Date (07-20-07)**

**Review Date (06-01-12)**

### Section 1: Product and Company Identification

**Product Name: Carbon and Graphite Products**

Synonym: Carbon/Graphite

Chemical formula: C

**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 TWA MPPCF	ACGIH TLV mg/m3	NTP	IARC	OSHA regulated
Carbon, also known as Graphite (7782-42-5)	>99.99%	15	10	No	No	No

Reg. toxic number: VV7780000.

### Section 3: Hazard Identification

#### Emergency overview

Contains no ingredients now known to be hazardous by OSHA. The normal cutting of the fiber, rod or carbon mount, either with scissors, razor blade or other machining is suspected of generating small amounts of possibly respirable fibers or dust. We believe that such cutting or working with powder should be done in a ventilated hood facility.

Appearance: Black Greasy or gray if graphite

Immediate effects: Coughing, Difficulty in breathing.

#### Potential health effects

Primary Routes of entry: Inhalation. Skin or eye contact.

Signs and Symptoms of Overexposure: Coughing, forceful expiration. Dyspnea, difficulty in breathing. Black sputum, black colored expectorate. Bronchitis, inflamed bronchial mucous membranes, pulmonary fibrosis, fibrous tissue involving lungs.

Pneumoconiosis, degenerative respiratory disease.

Eyes: Dust may cause eye irritation.

Skin: Dust may cause skin irritation.

Skin Absorption: Not expected to be a major route of entry.

Ingestion: Not known.

Inhalation: Small graphite fibers, powders or dust are suspected as being possible inhalation hazards.

Chronic Exposure: A review of the literature does not show obvious long term hazard.

Chemical Listed As Carcinogen Or Potential Carcinogen: No component known to be present in this product and is at > 0.1% is presently listed as a carcinogen by IARC or OSHA unless other wise noted.

See Toxicological Information (Section 11)

**Potential environmental effects**

See Ecological Information (Section 12)

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**Section 4: First Aid Measures**

**If accidental overexposure is suspected**

Eye(s) Contact: In case of contact, immediately flush eyes with copious amounts of flowing water for at least 15 minutes, retracting eye lids often. Get medical attention immediately. Contact lenses should not be worn when working with this product.

Skin Contact: Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes.

Inhalation: If large amounts of the dust are inhaled, move the exposed person to fresh air at once. If symptoms persist contact physician.

Ingestion: Not known.

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**Section 5: Fire Fighting Measures**

Flash Point: Not known, but very high!

Flammable Limits: NA

Auto-ignition point: NE

Fire Extinguishing Media: Non-burning.

Special Fire Fighting Procedures: Treat the surrounding fire; this product is non-burning.

Unusual Fire and Explosion Hazards: NIF

Hazardous combustion products: ND

DOT Class: Not regulated.

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**Section 6: Accidental Release Measures**

Steps to be Taken in Case Material is Released or Spilled: This product is not subject to "accidental release" in the form of normal use.

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: Store in the plastic bags or container in which the product is shipped, tightly sealed.

Storage temperature: NA

Storage Pressure: NA

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

Ventilation required: Chemical fume hood with exhaust.

### **Personal Protection Equipment**

Respiratory protection: For the occasional cutting of a fiber or rod, special protection is not needed, provided it is done in a chemical fume hood with exhaust. When working with powder use chemical fume hood with exhaust.

Protective gloves: Latex gloves.

Skin protection: No particular protection needed when handling this material on an occasional basis. For converting bulk rolls of the fiber into smaller packs, we recommend the wearing of some kind of gloves, for example, latex gloves.

Eye protection: ANSI 87.1 approved safety glasses with side shield.

Additional clothing and/or equipment: NIF

### **Exposure Guidelines**

See Compositions/Information on Ingredients (Section2)

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## **Section 9 Physical and Chemical Properties**

Appearance and Physical State: Black: fiber, rod, or powder with possibly "greasy" feel. Gray for graphite

Color: Black, or gray for graphite

Odor (threshold): None

Specific Gravity (H<sub>2</sub>O=1): 2 to 2.5 g/cc

Vapor Pressure (mm Hg): 0.00

Vapor Density (air=1): NIF

Percent Volatile by volume: NE

Evaporation Rate (butyl acetate=1): NE

Boiling Point: 4826.6° C (8720° F)

Freezing point / melting point: 3651.6° C (6605° F)

pH: NA

Solubility in Water: Insoluble

Molecular Weight: 12.01

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## **Section 10: Stability and Reactivity**

Stability: The product is stable under normal use conditions.

Conditions to Avoid: Heat, sparks, flames, and other ignition sources; avoid heating above 290° C (554° F).

Materials to Avoid (Incompatibility): Strong oxidizers, fluorine, peroxides.

Hazardous Decomposition Products: NIF

Hazardous Polymerization: This material is not reactive.

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## **Section 11: Toxicological Information**

Human experience: Graphite causes benign pneumoconiosis (graphitosis). Symptoms of pneumoconiosis from graphite exposure are Dyspnea, coughing, black sputum, bronchitis, ventricular hypertrophy and impairment of pulmonary function. X-rays will show progressive nodulation of the lungs. The threshold limit value was set in conformity with the limit for free crystalline silica, which may be present in graphite.

Chronic Effects: A review of the literature does not show obvious long term hazard.

No component known to be present in this product at > 0.1% is presently listed as a carcinogen by IARC, NTP, or OSHA unless otherwise noted in Section 16.

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### **Section 12: Ecological Information**

Ecological Information: No ecological information is available for this product.

Chemical Fate Information: NIF

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### **Section 13 Disposal Considerations**

RCRA 40 CFR 261 Classification: This product as purchased does not fall under current US EPA (Environmental Protection Agency) RCRA definitions of hazardous waste.

Under RCRA it is the generator's responsibility to determine the status of the waste at the time of its disposal.

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: Not Regulated.

Hazard Class: Not Regulated.

Packaging group: NA

UN Number: Not Regulated.

Limitations: NA

IATA: Proper shipping name: Not Regulated.

Hazard Class: NA

Packing group: NA

UN Number: NA

Limitations: NA

Domestic shipments only:

IMO: Proper shipping name: NA

Class: NA

UN Number: NA

Packing group: NA

EMS: NA

MFAG: NA

Marine Pollutant: No

Canadian TDG: All components of this product are listed on the Canadian Environmental Protection Act (CEPA) provisional domestic substances list (DSL).

IMDG Page: NA

Limitations: NA

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### **Section 15: Regulatory Information**

#### **United States Federal Regulations**

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

SARA: Not listed anywhere

SARA Title III: No "313 chemicals" contained in this product.

RCRA: NIF

TSCA: All components of this product are listed on the Toxic Substance Control Act (TSCA) Section 8(b) Chemical Inventory.

CERCLA: This product does not contain any CERCLA regulated materials.

**State Regulations**

California Proposition 65: None

**International Regulations**

Canada WHMIS: This product is not a "controlled product" as defined by the Canadian Workplace Hazardous Materials Information System (WHMIS).

Europe EINECS Numbers: NA

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**Section 16: Other Information**

Label Information: NA

European Risk and Safety Phrases: NA

European symbols needed: NA

Canadian WHMIS Symbols: NA

Hazard Rating: Health: **1**; Fire: **0**; 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

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**Disclaimer**

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