

Safety Data Sheet

Product No. 814-310, 814-312, 814-314, 814-316, 814-318, 814-320, 814-322, 814-324, 814-326, 814-328 Polycrystalline Diamond Suspension 0.1, 0.25, 0.5, 1.0, 3.0, 6.0, 9.0, 15, 30, 45 µm

Issue Date (05-8-15)

Review Date (11-6-15)

Section 1: Product and Company Identification

Product Name: Polycrystalline Diamond Suspension 0.1, 0.25, 0.5, 1.0, 3.0, 6.0, 9.0, 15, 30, 45 µm

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: Hazard Identification

2.1 Classification of the substance or mixture

GHS Pictograms



GHS07 GHS08

GHS Categories

GHS07 – Irritant

Skin Irritant 2

Eye Irritant 2B

H315: Causes mild skin irritation.

H320: Causes eye irritation.

GHS08 – Health

Acute Tox. (oral) 4

Reprod. Tox. 2

STOT RE 2

H302: Harmful if swallowed.

H361: Suspected of damaging fertility or the unborn child.

H373: May cause damage to kidneys through repeated exposure.

Signal Word: Warning

Hazard Statements

H302 Harmful if swallowed
H315 Causes mild skin irritation
H320 Causes eye irritation
H361 Suspected of damaging the unborn child
H373 May cause damage to kidneys through repeated exposure.

Precautionary Statements

P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fumes/gas/mist/vapors/spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists get medical advice/attention
P273 Avoid release to the environment.
P501 Dispose of contents and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

Health Effects:

NFPA Hazard Rating: Health: ND; Fire: ND; Reactivity: ND
HMIS® Hazard Rating: Health: ND; Fire: ND; Reactivity: ND
(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Results of PBT and vPvB assessment: A chemical safety assessment has not been carried out.

PBT: ND

vPvB: ND

Emergency overview:

Appearance: Opaque liquid of varying colors due to diamond size

Immediate effects: ND

Potential health effects

Primary Routes of entry: Skin and eye irritant, ingestion.

Signs and Symptoms of Overexposure: Irritation.

Eyes: Mechanical eye irritation. Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Skin: Mechanical skin irritation. Signs/symptoms may include abrasion, redness, pain, and itching.

Ingestion: Harmful if swallowed.

Inhalation: May cause irritation on the nose and throat with headache, particularly from mists. High vapor concentrations caused, for example, by heating the material in poorly ventilated space, may produce nausea, vomiting, headache, dizziness. Dust from

grinding, sanding, or machining may cause irritation to the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Chronic Exposure: May cause damage to kidneys through repeated exposure. Ethylene Glycol - Suspected of damaging the unborn child.

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
Diamond (7782-40-3)	<20 ^a	5 mg/m ³ ^b ; 15 mg/m ³ ^c	3 mg/m ³ ^b ; 10 mg/m ³ ^c	No	No	No
Proprietary Glycol Blend	<0.1 – 60 ^a	NE	NE	No	No	No
Ethylene Glycol (107-21-1)	5-30	NE	100 mg/m ³ (Ceiling)	No	No	No

^{a)} The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret. All remaining components are considered to be non-hazardous per 1910.1200.

^{b)} Respirable fraction; ^{c)} Total Particulate (Nuisance Dust)

Section 4: First Aid Measures

If accidental overexposure is suspected

Eye(s) Contact: Immediately flush eyes with plenty of water lifting lower and upper eyelids occasionally, until abrasive material is removed. Get medical attention if irritation persists. After initial flushing, remove any contact lenses if worn.

Skin Contact: Remove contaminated clothing. Immediately wash with soap and water and rinse thoroughly. Seek medical attention if required.

Inhalation: Remove to fresh air. Seek medical attention if required.

Ingestion: No ingestion hazard is expected under normal industrial use. If a large quantity is ingested, seek immediate medical attention. Do not induce vomiting.

Note to physician

Treatment: ND

Medical Conditions generally Aggravated by Exposure: ND

Section 5: Fire Fighting Measures

Flash Point: 116°C (241°F)

Flammable Limits: ND

Auto-ignition point: ND

Fire Extinguishing Media: Product is non-flammable. Extinguishing methods depend upon hazards in vicinity. Use water or dry extinguishing powders, sand, CO₂ or other inert material as extinguishing media. Do not use water if any water-reactive metal powders are nearby.

Special Fire Fighting Procedures: Use a self-contained breathing apparatus and full protection gear. Dike and collect water used to fight fire if possible.

Unusual Fire and Explosion Hazards:

Hazardous combustion products: Burning may produce carbon monoxide and carbon dioxide.

DOT Class: Not regulated.

Section 6: Accidental Release Measures

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

Personal precautions, protective equipment and emergency procedures: Avoid contact with skin and eyes, and formation and accumulation of dust. Use personal protective equipment as specified in Section 8 of this SDS. Sweep or gather up material and place in proper container for disposal or recovery.

Environmental Precautions: Avoid release into the environment.

Methods and material for containment and cleaning up:

Containment: If material is spilled or released, cordon off area. Persons not wearing appropriate protective equipment should be excluded from spill area until clean-up has been completed.

Clean-Up: Wear appropriate personal protective equipment as specified in Section 8. Collect spilled material and clean up any residue material by vacuuming or wet sweeping to reduce dust generation and place into an appropriate container suitable for proper disposal in accordance with local, regional, national, and/or international regulations.

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: Wear appropriate protective gloves and safety glasses with side shields or chemical goggles. Avoid contacting or breathing of material. Use only in well-ventilated area and be sure to wash hands thoroughly after handling material.

Storage: Store in a tightly closed container in a secure and well-ventilated area. Store under dry and cool conditions and away from incompatible materials (acids and oxidizing agents) and direct sunlight.

Storage temperature: Room temperature.

Storage Pressure: ND

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls (wet grinding) to maintain airborne levels below identified exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protection Equipment

Respiratory protection: If ventilation is not sufficient to control exposures below the applicable exposure limits, an appropriate NIOSH approved air-purifying respirator equipped with organic vapor cartridges with dust/mist pre-filter is recommended.

Protective gloves: Nitrile, neoprene, butyl, polyethylene, or PVC gloves.

Skin protection: Wear appropriate clothing or PPE to prevent repeated or prolonged contact with exposed skin.

Eye protection: Safety glasses with side shields or safety goggles.

Additional clothing and/or equipment: ND

Exposure Guidelines

See Composition/Information on Ingredients (Section 3)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Opaque liquid of varying colors due to diamond size.

Odor (threshold): Mild odor (NA)

Specific Gravity (H₂O=1): 1

Vapor Pressure (mm Hg): ND

Vapor Density (air=1): NA

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): NA

Boiling Point: $\geq 100^{\circ}\text{C}$ (212 $^{\circ}\text{F}$)

Freezing point / melting point: ND

pH: ND

Solubility in Water: Soluble

Molecular Weight: ND

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Incompatible materials.

Materials to Avoid (Incompatibility): Strong acids

Hazardous Decomposition Products: Burning may produce carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

Results of component toxicity test performed:

Acute oral toxicity: Harmful if swallowed

Acute inhalation toxicity: May cause irritation on the nose and throat with headache, particularly from mists. High vapor concentrations caused, for example, by heating the material in poorly ventilated space, may produce nausea, vomiting, headache, dizziness. Dust from grinding, sanding, or machining may cause irritation to the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Acute dermal toxicity: ND

Skin corrosion /irritation: Mechanical skin irritation. Signs/symptoms may include abrasion, redness, pain, and itching.

Eye damage/ irritation: Mechanical eye irritation. Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Respiratory/skin sensitization: ND

Germ cell mutagenicity: ND

Carcinogenicity: None of the components of these products is listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, or OSHA.

Reproductive toxicity: Ethylene Glycol - Suspected of damaging the unborn child.

STOT single exposure: May cause drowsiness or dizziness, based on properties of the materials.

STOT repeated exposure: Prolonged or repeated exposure through ingestion may produce severe kidney damage.

Aspiration hazard: ND

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:

Toxicity to fish: Fathead Minnow <10,000 mg/L/96 hr (Ethylene Glycol)

Toxicity to invertebrates: Protozoa (Entosiphon sulcatum and Uronema parduczi)
>10,000 mg/L

Toxicity to algae and plants: Algae (Microcystis aeruginosa) 2,000 mg/L

Persistence and degradability: ND

Bio-accumulative potential: ND

Mobility in soil: Material is highly mobile in soil as it is water soluble.

Chemical Fate Information: ND

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: ND

Two options are recommended: (a) Re-use (b) Recycling or other recovery. Wastewater should be processed through a sewage treatment plant either on- or off-site.

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: Not regulated.

IATA: Not regulated.

Marine Pollutant: No
Canadian TDG: Not regulated.

Section 15: Regulatory Information

United States Federal Regulations

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

SARA Title III (Section 313): Ethylene Glycol (107-21-1) is subject to reporting levels.

RCRA: None of the ingredients is listed.

TSCA: All components are listed on the TSCA public inventory.

CERCLA: None of the ingredients is listed.

State Regulations

California Proposition 65: None of the ingredients is listed.

International Regulations

Canada WHMIS: ND

Europe EINECS Numbers: ND

Section 16: Other Information

Label Information: See Section 2.

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

Disclaimer

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