

**Safety Data Sheet**

**Product No. 813-501, 813-502 PELCO® Epoxy**

**Resin**

**Issue Date (9-17-15)**

**Review Date (11-6-15)**

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**Section 1: Product and Company Identification**

**Product Name: PELCO® Epoxy Resin**

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.**

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**Section 2: Hazard Identification**

**2.1 Classification of the substance or mixture**

**GHS Pictograms**



GHS05



GHS08



GHS09



GHS07

**GHS Categories**

GHS05 – Corrosive

GHS08 – Health

Germ Cell Muta. 2

STOT RE 1

lungs and blood system through prolonged or repeated exposure.

H341: Suspected of causing genetic defects.

H373: Causes damage to skin, kidney, liver,

GHS09 – Environment

Aq. Hazard, Acute 2

Aq. Hazard, Long Term 2  
effects.

H401: Toxic to aquatic life.

H411: Toxic to aquatic life with long-lasting

GHS07 – Irritant

Skin Corr./Irrit. 2

Serious Eye Dam./Eye Irrit. 2A

Skin Sens. 1

STOT SE 3

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H317: May cause an allergic skin reaction.

H335: May cause respiratory irritation.

## 2.2 Label elements

### Hazard Pictograms



**Signal Word:** Danger

### Hazard Statements

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H373 Causes damage to skin, kidney, liver, lungs and blood system through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long-lasting effects.

### Precautionary Statements

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe mist/vapors/spray.
- P264 Wash exposed area with plenty of water and soap thoroughly after handling.
- P270 Do not eat, drink, or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
- P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- P308+P313 If exposed or concerned: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P362 Take off contaminated clothing and wash before reuse.
- P391 Collect spillage.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.  
P501 Dispose of contents/container to hazardous or special waste collection point in accordance with local/regional/national/international regulations.

### **2.3 Other hazards**

#### **Health Effects:**

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

Results of PBT and vPvB assessment:

PBT: ND

vPvB: ND

#### **Emergency overview:**

Appearance: Viscous amber liquid.

Immediate effects: Certain individuals may have pre-existing skin or respiratory conditions causing a sensitivity or allergy which manifest as various reactions. Heating or spraying this product or the mixed parts increases potential health hazards. Health and safety personnel should examine the handling procedures and remedy any existing or potential health and safety hazards.

#### **Potential health effects**

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

Signs and Symptoms of Overexposure: Skin rash, irritation, reddening, or eczema, breathing irritation or difficulty.

Eyes: May cause serious eye irritation. Adverse symptoms may include tearing, redness and swelling.

Skin: May be harmful in contact with skin. Adverse symptoms may include irritation, redness and dermatitis, either irritative or allergic.

Ingestion: May be harmful if swallowed. Adverse symptoms may include abdominal pain, nausea and diarrhea.

Inhalation: Inhalation unlikely due to low vapor pressure. However, if handled at elevated temperatures, may give off gas, vapor or mist that is very irritating to respiratory system. Adverse reactions may include nausea, headache, and difficulties with breathing.

Chronic Exposure: Repeated exposure may cause skin sensitization; damage to kidney, liver, lungs and blood system; and genetic defects.

Chemical Listed As Carcinogen or Potential Carcinogen: None.

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 Carcinogen	IARC Carcinogen	OSHA regulated Carcinogen
Diglycidyl Ether of Bisphenol A Homopolymer (DGEBPA) (25085-99-8) EC-No. 607-537-5	90-100	ND	ND	No	No	No
Confidential Component 1 (Trade secret)	5-10	ND	ND	No	No	No
Aromatic Amino Polyol-Red (NA)	≤ 5	ND	ND	No	No	No

### Section 4: First Aid Measures

#### If accidental overexposure is suspected

- Eye(s) Contact: Immediate medical attention required. Chemical burns must be treated promptly by a physician or ophthalmologist. Rinse cautiously with water for several minutes, especially under the eyelids. Remove contact lenses, if present and easy to do so. Continue rinsing for at least 15 minutes. Do not rub eyes in order to prevent cornea injury.
- Skin Contact: Wash material off the skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes immediately and wash them before reuse. For severe exposures, immediately get under safety shower and begin rinsing. For molten product, immediately immerse affected area in cool water or flush with large amounts of cool water, and get medical attention. If irritation develops, consult a physician or dermatologist.
- Inhalation: Remove the exposed person to fresh air and keep at rest in a comfortable position for breathing. Get medical attention if symptoms occur. If unconscious, place patient on their side and maintain an open airway. Loosen tight clothing. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person should be kept under medical surveillance for 48 hours.
- Ingestion: Remove the exposed person to fresh air and keep at rest in a position comfortable for breathing. If conscious, rinse mouth thoroughly with water and give 1-2 glasses of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Never induce vomiting or give anything by mouth to an unconscious person. If vomiting occurs, head should be kept low to prevent aspiration. If unconscious, place victim on their side and get medical attention immediately.

### **Note to physician**

Treatment: No specific antidote or neutralizer exists. Treatment should be supportive and based on physician's judgment in reaction to symptoms. Symptoms of poisoning may occur even after several hours; therefore, monitor for at least 48 hours.

Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed.

Skin: Treat symptomatically for contact dermatitis or thermal burn.

Ingestion: Inducing vomiting can be contraindicated because of irritating nature of chemical.

Medical Conditions generally Aggravated by Exposure: Skin disorders and kidney, liver, lung and blood system damage if product is handled without adequate protection.

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

Flash Point: > 93.4 °C (200 °F)

Flammable Limits: NA

Auto-ignition point: Product is not self-igniting.

Fire Extinguishing Media: Water fog or fine spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool containers at risk of pressure build-up and rupture with water.

Special Fire Fighting Procedures: Stay upwind. Wear at least full bunker gear and SCBA. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Contain run-off water if possible;

uncontained fire water run-off can cause environmental damage. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Unusual Fire and Explosion Hazards: Combustible, Class IIIB liquid. Material may be ignited only if preheated to high temperatures (such as in fire conditions). Fire in vicinity poses risk of pressure build-up and rupture; cool at-risk containers with water and remove from the danger area, if possible. Dense smoke is emitted when burned without sufficient oxygen.

Hazardous combustion products: Carbon dioxide, carbon monoxide, nitrogen oxides, hydrogen cyanide, and lower molecular-weight organic molecules.

DOT Class: None

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

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

**Personal precautions, protective equipment and emergency procedures:** Isolate spill area. Ensure adequate ventilation/exhaust extraction. Always wear proper personal protective equipment when cleaning up an isocyanate spill and using a neutralizing solution. Avoid breathing mist/vapors during clean-up.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and groundwater. Inform relevant authorities if the product has caused environmental pollution. Water-polluting material. May be harmful to the environment if released in large quantities.

**Methods and materials for containment and clean-up:** Absorb spill with non-combustible materials and scoop up; transfer into properly-labeled chemical waste containers. Cover container but do not seal, and remove from work area. Keep in well-ventilated area. Clean up spill residues with warm, soapy water; scrubbing with broom or

brush helps the decontamination solution penetrate into porous surfaces. Wait at least 15 minutes after first application; cover area again with absorbent material and shovel into chemical waste container. After 72 hours, seal container and properly dispose of the waste material and contaminated equipment in accordance with official regulations.

Large spills: Stop leak if without risk. Move containers from spill area. Remove ignition sources. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or contain and collect with an absorbent material as described above.

Small spills: Wipe up with absorbent material. Clean surface thoroughly with soap and water. Never return spills to original container for reuse.

Note: It may take two or more applications of neutralizing solution to decontaminate the surface. Check for residual contamination using a surface wipe method such as the CLI Swype® pad.

**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:	Protect from atmospheric moisture. Avoid prolonged exposure to heat and air. Avoid use of electric band heaters. Failure of electric band heaters have been reported to cause drums of liquid epoxy resin to explode and catch fire, as can application of a direct flame to a container of liquid epoxy resin. Do not reseal if contamination is suspected. Use adequate ventilation to keep airborne chemicals below exposure limits. Do not inhale vapors or mists; wear respiratory protection if material is heated, mixed, sprayed or used in a confined space. Avoid contact with eyes and skin; wear appropriate eye and skin protection. Wash hands after handling; before eating, drinking and smoking; and at the end of shift. Remove contaminated clothing and protective equipment before entering eating areas.
Storage:	Store in original or approved alternative container and away from direct sunlight in a cool, dry and well-ventilated area away from incompatible materials and food and drink. Store locked up. Keep container tightly-closed and sealed until ready for use. Opened containers must be carefully resealed and kept upright to prevent leakage. Protect against physical damage and moisture. Keep away from heat, sparks and flame. Do not cut, drill, grind, weld, or perform similar operations near containers. Use appropriate containment to avoid environmental contamination.
Storage temperature:	60° to 105° F (16° to 40°C) or ambient.
Storage Pressure:	ND
Shelf life:	24 months when stored at recommended storage temperature.

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

Ventilation required: Provide ventilation that will keep airborne concentration at a minimum. Local exhaust may be required in some areas.

### **Personal Protection Equipment**

Respiratory protection: NIOSH approved respirator with organic vapor/HEPA filter cartridges where ventilation is inadequate.

Protective gloves: Butyl or nitrile rubber, neoprene or PVC gloves.

Skin protection: Footwear and protective clothing appropriate to task being performed (e.g. apron, arm covers, or full body suit). Wash contaminated clothing before reuse and store work clothing separately.

Eye protection: Safety glasses or splash goggles, or face shield where there is an increased risk of splashing.

Additional equipment: Safety shower and eyewash station.

### **Exposure Guidelines**

See Composition/Information on Ingredients (Section 3)

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

Appearance and Physical State: Viscous clear-to-amber liquid.

Odor (threshold): Mild (ND)

Specific Gravity (H<sub>2</sub>O=1): 1.10-1.20

Vapor Pressure (mm Hg): Negligible.

Vapor Density (air=1): ND

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND

Boiling Point: >250 °C (482 °F)

Freezing point / melting point: ND

pH: ND

Viscosity: 8000-13000 mPa @25 °C (77 °F)

Solubility in Water: < 8 mg/L

Molecular Weight: ND

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

**Reactivity:** Hazardous Polymerization will not occur by itself. Reaction of more than one pound (0.5 kg) of product with an aliphatic amine will cause irreversible polymerization with considerable heat build-up.

**Stability:** Stable under recommended storage conditions

**Conditions to Avoid:** Avoid short term exposures to temperatures above 300°C. Avoid prolonged exposure to temperatures above 250°C. Potentially violent decomposition can occur above 350°C. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.

**Incompatible materials:** Oxidizing agents. Water, alcohols, amines, bases, acids.

**Hazardous decomposition products:** Depend upon temperature, air supply and presence of other materials. Can include, but are not limited to carbon dioxide, carbon monoxide, nitrogen oxides, amines, hydrogen cyanide, lower molecular weight organic molecules.  
**Hazardous Polymerization:** Will not occur by itself.

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### Section 11: Toxicological Information

Results of component toxicity test performed – Acute Toxicity:

<b>Diglycidyl Ether of Bisphenol A Homopolymer (CAS: 25085-99-8)</b>	
Oral LD (Rat)	>5,000 mg/kg
Dermal LD50 (Rabbit)	20,000 mg/kg
Inhalation LC50 (Rat)	ND
Skin corrosion/irritation (Rabbit)	Prolonged and repeated contact may cause skin irritation with local redness.
Serious eye damage/irritation (Rabbit)	May cause eye irritation. Corneal injury is likely.
<b>Confidential component 1 (CAS: trade secret)</b>	
Oral LD50 (Rat)	~10,000 mg/kg
Dermal LD50 (Rabbit)	2,000-5,000 mg/kg
Inhalation LC50 (Rat)	ND
Skin corrosion/irritation (Rabbit)	Irritating (4 h exposure/72 h observation)
STOT, SE	Respiratory tract irritation, Category 3 hazards
<b>Aromatic Amino Polyol-Red (CAS: NA)</b>	
Skin corrosion/irritation (Rabbit)	Not irritating (4 h); may cause irritation in susceptible persons
Serious eye damage/irritation (Rabbit)	Irritating (72 h)

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:** Toxic to aquatic life with long-lasting effects. Do not allow to reach ground water, water course, or sewage system. Danger to drinking water if even small quantities leak into ground.

Acute Toxicity:

Diglycidyl Ether of Bisphenol A Homopolymer (CAS: 25085-99-8)

Fish LC50 (fathead minnow): 3.1 mg/ (96 h)  
 Aquatic invertebrates EC50 (Daphnia magna): 1.4-1.7 mg/L (48 h)

Confidential component 1 (CAS: trade secret)

Fish LC50 (rainbow trout): 1-10 mg/L (96 h)  
 Aquatic invertebrates EC50 (Daphnia magna): 1-10 mg/L (48 h)  
 Aquatic plants EC50 (green algae): 1-10 mg/L (96 h)  
 Bioaccumulative potential (fathead minnow): low (28 days)  
 Partition coefficient, n-octanol/water (log Pow): 2-3

Ecological Data (Diglycidyl Ether of Bisphenol A Homopolymer, CAS: 25085-99-8)



Microorganisms IC50 (bacteria): >42.6 mg/L (18 h) (Growth inhibition)  
Bioconcentration potential: moderate (BCF 100-3,000 or Log Pow between 3-5)  
Mobility in soil: Low (Koc 200-2,000). Based on its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Henry's Law Constant (H):  $\leq 6.94 \times 10^{-09}$  atm\*mol @25°C (estimated)

Partition coefficient, n-octanol/water (low Pow): 3.7-3.9 (measured)

Bioaccumulative Potential (Aromatic Amino Polyol-Red, CAS: not assigned): 10.2 mg/L (96 days)

Chemical Fate Information: Moderately biodegradable.

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### **Section 13 Disposal Considerations**

RCRA 40 CFR 261 Classification: None

The generation of waste should be avoided or minimized whenever possible. Do not discharge into sewers, on the ground, or into any body of water. Spill residues may still be subject to RCRA storage and disposal requirements.

Even after emptying, container may contain residues. Empty containers should be completely drained and safely stored until appropriately reconditioned or disposed of through licensed contractor in accordance with government regulations.

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: Non-Bulk: Not Regulated. (Not Regulated if less than 119 gallons.)

Bulk: Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)

Hazard Class: 9

Packaging group: III

UN Number: UN 3082

IATA: Non Bulk: Not Regulated if less than 119 gallons.

Bulk: Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)

Hazard Class: 9

Packaging group: III

UN Number: UN 3082

Marine Pollutant: Yes Add "Marine Pollutant" to end of proper shipping name if shipping in a bulk container >119 gallons

Canadian TDG: Bulk: Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)

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

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

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

SARA: No components subject to reporting.

SARA Title III (Section 311 and 312): Acute health hazard, chronic health hazard. No components subject to reporting.

RCRA: ND

TSCA: All components are listed.

CERCLA: No components subject to reporting.

**State Regulations**

California Proposition 65: Not listed

**International Regulations**

Canada WHMIS: Class D-2A; Class D-2B

Europe EINECS Numbers: See section 3

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**Section 16: Other Information**

Label Information: See section 3

European Risk and Safety Phrases: ND

European symbols needed: ND

Canadian WHMIS Symbols: 

Hazardous Products Act Information: This product SDS contains ingredients which are controlled and/or on the Ingredient Disclosure List (HPA section 13 and 14).

**Abbreviations used in this document**

NE= Not established

NA= Not applicable

NIF= No Information Found

ND= No Data

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