Section 1: Product and Company Identification
Product Name: 18043 JB-4® Plus Monomer Solution A: Component of 18040 JB-4® Plus Embedding Kit
Synonym: None
Company Name
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

Section 2: Hazard Identification
GHS Pictograms:

![GHS Pictograms: Corrosive and Irritant](image)

GHS Categories:
GHS05: Corrosive
GHS07: Irritant

Signal Word: DANGER

Causes eye irritation.
May cause allergic skin reaction.
Eye Irritation Category 2B
Skin Sensitizer Category 1B

Hazard and Precautionary Statements:
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301A IF SWALLOWED do not induce vomiting. Do not give anything to drink. Obtain medical attention without delay.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305B IF IN EYES: Separate eyelids with finger tips.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P351 Rinse cautiously with water for several minutes.
P361 Remove/Take off immediately all contaminated clothing.

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: A chemical safety assessment has not been carried out.
PBT: ND
vPvB: ND

Emergency overview:
Appearance: Colorless liquid
Immediate effects: ND

Potential health effects
Primary Routes of entry: Skin and eye contact
Signs and Symptoms of Overexposure:
Eyes: Causes serious eye irritation.
Skin: May cause an allergic skin reaction
Ingestion: ND
Inhalation: ND
Chronic Exposure: ND
Chemical Listed As Carcinogen Or Potential Carcinogen: Yes, Formaldehyde (50-00-0), Acetaldehyde (75-07-0), Ethylene Oxide (75-21-8), 1,4-Dioxane (123-91-1)

See Toxicological Information (Section 11)

Potential environmental effects
See Ecological Information (Section 12)

Section 3: Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Principle Hazardous Component(s)</th>
<th>%</th>
<th>OSHA PEL mg/m³</th>
<th>ACGIH TLV mg/m³</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA regulated Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Dioxane (123-91-1) EINECS: 204-661-8</td>
<td>0-5</td>
<td>TWA 360 mg</td>
<td>TWA 20 ppm 72 mg</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2-Hydroxyethyl methacrylate (868-77-9) EINECS: 212-782-2</td>
<td>91-100</td>
<td>NE</td>
<td>NE</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>4-Methoxyphenol (150-76-5) EINECS: 205-769-8</td>
<td>0-5</td>
<td>TWA Not classified</td>
<td>TWA 5 mg</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Acetaldehyde (75-07-0) EINECS: 200-836-8</td>
<td>0-5</td>
<td>TWA Not classified ppm TWA 360 mg</td>
<td>CEILING 25 pp, 45 mg/m³</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ethylene oxide (75-21-8) EINECS: 200-849-9</td>
<td>0-5</td>
<td>TWA not classified</td>
<td>TWA 1 ppm 1.8 mg</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Formaldehyde (50-00-0) EINECS: 200-001-8</td>
<td>0-5</td>
<td>TWA not classified STEL 2/15 mi ppm</td>
<td>CEILING 0.3 c ppm 0.37 mg/m³</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Poly(ethylene oxide) (25322-68-3)</td>
<td>6-10</td>
<td>NE</td>
<td>NE</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
Section 4: First Aid Measures
If accidental overexposure is suspected
Eye(s) Contact: Flush eyes with flowing water for at least 15 minutes. Separate eyelids with finger tips.
Skin Contact: Wash skin with deluge of water for at least 15 minutes. Remove contaminated clothing.
Inhalation: If breathing is difficult, contact emergency personnel. Remove to fresh air.
Ingestion: If swallowed, wash out mouth with water if person is conscious.

Note to physician
Treatment: ND
Medical Conditions generally Aggravated by Exposure: ND

Section 5: Fire Fighting Measures
Flash Point: 214°F
Flammable Limits: ND
Auto-ignition point: ND
Fire Extinguishing Media: Carbon dioxide, dry chemical powder, and alcohol resistant foam.
Special Fire Fighting Procedures: Firefighters must wear self-contained breathing apparatus and fully protective equipment.
Unusual Fire and Explosion Hazards: ND
Hazardous combustion products: Carbon oxides
DOT Class: Not regulated.

Section 6: Accidental Release Measures
Steps to be Taken in Case Material is Released or Spilled: Any information listed below is to be considered in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition sources from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel. Protect personnel from exposure.
Remove ignition sources. Use appropriate personal protective equipment.
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:
Storage temperature: Room Temperature
Storage Pressure: ND

Section 8: Exposure Controls / Personal Protection
Engineering Controls
Ventilation required:
Personal Protection Equipment
Respiratory protection: ND
Protective gloves: Chemical-resistant gloves should be worn whenever this material is handled. The glove material has to be impermeable and resistant to the product. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water. All glove recommendations presume that the risk of exposure is through splash and not intentional immersion of the hands into the product. Since glove permeation data does not exist for this material, no recommendation for the glove material can be given for the product. Permeation data must be obtained from the glove manufacturer to determine if the glove is suitable for the task.
Eye protection: Use chemical splash goggles and face shield.
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: Colorless liquid
Odor (threshold): ND
Specific Gravity (H2O=1): 1.07
Vapor Pressure (mm Hg): ND
Vapor Density (air=1): ND
Percent Volatile by volume: ND
Evaporation Rate (butyl acetate=1): ND
Boiling Point: ND
Freezing point / melting point: ND
pH: ND
Solubility in Water: slightly soluble
Molecular Weight: ND

Section 10: Stability and Reactivity
Stability: Stable under normal conditions.
Conditions to Avoid: high temperatures, light
Materials to Avoid (Incompatibility): Polymerizing agents
Hazardous Decomposition Products: carbon oxides
Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information
Results of component toxicity test performed: ND
Human experience: ND
This product does contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.
Formaldehyde (50-00-0), Acetaldehyde (75-07-0), Ethylene Oxide (75-21-8), 1,4-Dioxane (123-91-1)

Section 12: Ecological Information
Ecological Information: ND
Chemical Fate Information: ND

Section 13: Disposal Considerations
RCRA 40 CFR 261 Classification:
<table>
<thead>
<tr>
<th>Cas#</th>
<th>Waste Code</th>
<th>Regulated Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-00-0</td>
<td>U122</td>
<td>Formaldehyde</td>
</tr>
<tr>
<td>75-07-0</td>
<td>U001</td>
<td>Ethanol</td>
</tr>
<tr>
<td>75-21-8</td>
<td>U115</td>
<td>Oxirane</td>
</tr>
<tr>
<td>123-91-1</td>
<td>U108</td>
<td>1,4-Dioxane</td>
</tr>
<tr>
<td>150-76-5</td>
<td>not listed</td>
<td>not listed</td>
</tr>
<tr>
<td>868-77-9</td>
<td>not listed</td>
<td>not listed</td>
</tr>
<tr>
<td>25322-68-3</td>
<td>not listed</td>
<td>not listed</td>
</tr>
</tbody>
</table>

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: Not regulated
IATA: Proper shipping name: Not regulated
Marine Pollutant: No
Canadian TDG: Not regulated

Section 15: Regulatory Information
United States Federal Regulations

SARA: Substance is listed.
SARA Title III: Toxic chemicals, including their de minimis concentrations for which reporting is required under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), also referred to as the Toxic Release Inventory (TRI):
Formaldehyde (50-00-0): 0.1. Acetaldehyde (75-07-0): 0.1. Ethylene Oxide (75-21-8): 0.1. 1,4-Dioxane (123-91-1): 0.1. Hazardous substances regulated under Section 302 with their TPQs (in pounds): Formaldehyde (50-00-0): TPQ = 500 lbs, EHS-RQ = 100 lbs. Ethylene oxide (75-21-8): TPQ = 1000 lbs, EHS-RQ = 10.


TSCA: All components are listed.

CERCLA: Formaldehyde (50-00-0): RQ = 100 lbs (45.4 kg). Acetaldehyde (75-07-0): RQ = 1000 lbs (45.4 kg). Ethylene Oxide (75-21-8): RQ = 10 lbs (4.54 kg). 1,4-Dioxane (123-91-1): RQ = 100 lbs (45.4 kg).

State Regulations
California Proposition 65: Materials contained in this product are known to the State of California to cause cancer and/or reproductive toxicity: Formaldehyde (50-00-0): Cancer. Acetaldehyde (75-07-0): Cancer. Ethylene Oxide (75-21-8): Cancer and reproductive toxicity. 1,4-Dioxane (123-91-1): Cancer.

International Regulations
Canada WHMIS: ND

Section 16: Other Information
Label Information: Irritant, Corrosive Metal
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
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.

SDS Form 0013FIW4