TED PELLA, INC.
Microscopy Products for Science and Industry

Material Safety Data Sheet
Product No. 18043 JB-4® Plus Monomer Solution A: Component of 18040 JB-4® Plus Embedding Kit
Issue Date (11-28-06)
Review Date (06-01-12)

Section 1: Product and Company Identification

Product Name: 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
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 PEL mg/m3	ACGIH TLV mg/m3	NTP	IARC	OSHA regulated
2-Hydroxyethyl Methacrylate (868-77-9)	93	NE	NE	No	No	No
Poly(ethylene oxide) (25322-68-3)	7	NE	NE	No	No	No
1,4-Dioxane (123-91-1)	0.001	360	72	P	2B	Yes
Acetaldehyde (75-07-0)	0.001	360	45	P	2B	Yes
Ethylene oxide (75-21-8)	0.001	NE	1.8	K	1	Yes
Formaldehyde (50-00-0)	0.001	NE	0.37	P	2A	Yes
4-Methoxyphenol (150-76-5)	0	NE	5	No	No	No

Section 3: Hazard Identification

Emergency overview
Appearance: Clear colorless liquid.
Immediate effects: Irritation.
Potential health effects

Primary Routes of entry: Skin and eyes.
Signs and Symptoms of Overexposure: ND
Eyes: Causes eye irritation.
Skin: May cause allergic skin reaction.
Ingestion: ND
Inhalation: ND
Chronic Exposure: ND
Chemical Listed As Carcinogen Or Potential Carcinogen: Formaldehyde (50-00-0), Acetaldehyde (75-07-0), Ethylene Oxide (75-21-8), 1,4-Dioxane (123-91-1).
See Toxicological Information (Section11)
Potential environmental effects
See Ecological Information (Section 12)

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: Remove contaminated clothing. Wash skin with copious amounts of water for at least 15 minutes.
Inhalation: Remove to fresh air. If breathing is difficult, contact emergency personnel.
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: ND
Special Fire Fighting Procedures: ND
Unusual Fire and Explosion Hazards: ND
Hazardous combustion products: Oxides of carbon.
DOT Class: NIF

Section 6: Accidental Release Measures
Steps to be Taken in Case Material is Released or Spilled: Any information mentioned 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. Remove ignition sources.
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: ND
Storage temperature: 25 °C

Storage Pressure: ND

Section 8: Exposure Controls / Personal Protection
Engineering Controls
Ventilation required: ND
Personal Protection Equipment
Respiratory protection: ND
Protective gloves: Impervious gloves.
Skin protection: ND
Eye protection: Safety glasses with side shields.
Additional clothing and/or equipment: ND
Exposure Guidelines
See Composition/Information on Ingredients (Section2)

Section 9 Physical and Chemical Properties
Appearance and Physical State: Clear colorless liquid.
Odor (threshold): ND
Specific Gravity (H_2O=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: NA

Section 10: Stability and Reactivity
Stability: Stable.
Conditions to Avoid: High temperatures and light.
Materials to Avoid (Incompatibility): Polymerizing agents.
Hazardous Decomposition Products: Oxides of carbon .
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.

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

Section 13 Disposal Considerations
RCRA 40 CFR 261 Classification: If the product is listed by code number the substance may be subject to special federal and state disposal regulations. If no codes are listed the material must be disposed in compliance with all Federal, State and Local Regulations. Formaldehyde (50-00-0): U122. Acetaldehyde (75-07-0): U001. Ethylene Oxide (75-21-8): U115. 1,4-Dioxane (123-91-1): U108.
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
IMO: Proper shipping name: Not regulated
Marine Pollutant: No
Canadian TDG: Not regulated

Section 15: Regulatory Information
United States Federal Regulations
MSDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.
SARA: Yes, Section(s) 302, 313.
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.
RCRA: Formaldehyde (50-00-0): U122. Acetaldehyde (75-07-0): U001. Ethylene Oxide (75-21-8): U115. 1,4-Dioxane (123-91-1): U108.
TSCA: All components of this product are on the TSCA public inventory.
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: Substances found in this product are listed in the CPR Inventory List.
Europe EINECS Numbers: 1,4-Dioxane (123-91-1) EINECS#: 204-661-8. 2-Hydroxyethyl Methacrylate (868-77-9) EINECS#: 212-782-2. 4-Methoxyphenol (150-76-5) EINECS#: 205-769-8. Acetaldehyde (75-07-0) EINECS#: 200-836-8. Ethylene oxide (75-21-8) EINECS#: 200-849-9. Formaldehyde (50-00-0) EINECS#: 200-001-8.

Section 16: Other Information
Label Information: ND
European Risk and Safety Phrases: ND
European symbols needed: ND
Canadian WHMIS Symbols: ND
Hazard Rating: Health: **2**; Fire: **1**; Reactivity: **1**
(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

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.