Section 1: Product and Company Identification
Product Name: JB-4 Solution A, Component of JB-4 Kit
Synonym:
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 Categories:
GHS07: Irritant
GHS08: Health Hazard

Signal Word: DANGER

Hazard Overview
Causes skin and eye irritation.
Harmful if absorbed through skin.
Harmful if inhaled.
May cause allergic skin reaction.

GHS Classification
Acute Toxicity Inhalation Category 5
Skin Irritant Cat 2, Eye Irritation Cat 2B
Skin Irritant Category 2
Skin Sensitizer Category 1B

Hazard Statements:
H312    Harmful in contact with skin.
H315    Causes skin irritation.
H317    May cause an allergic skin reaction.
H332 Harmful if inhaled.

Precautionary Statements:
P285 In case of inadequate ventilation wear respiratory protection.
P301D IF SWALLOWED: Induce vomiting as directed by medical personnel.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305B IF IN EYES: Separate eyelids with finger tips.
P315 Get immediate medical advice/attention.
P351 Rinse cautiously with water for several minutes.

Health Effects:
NFPA Hazard Rating: Health: 2; Fire: 1; Reactivity: 1
HMIS® Hazard Rating: Health: ND; Fire: ND; Reactivity: ND
(0=least, 1=Sligh, 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: Irritation.

Potential health effects
Primary Routes of entry: Skin and eye contact, inhalation.
Signs and Symptoms of Overexposure:
Eyes: Causes eye irritation.
Skin: Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
Ingestion: Harmful if swallowed.
Inhalation: Harmful if inhaled.
Chronic Exposure: ND
Chemical Listed As Carcinogen or Potential Carcinogen: No
See Toxicological Information (Section11)

Potential environmental effects
See Ecological Information (Section 12)

Section 3: Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)</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>2-Hydroxyethyl (868-77-9) EINECS: 212-782-2</td>
<td>81-90</td>
<td>NE</td>
<td>NE</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2-Butoxy ethanol (111-76-2) EINECS: 203-905-0</td>
<td>11-20</td>
<td>240 mg</td>
<td>20 ppm 97 mg</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>4-Methoxyphenol</td>
<td>0-5</td>
<td>NE</td>
<td>5 mg</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: Separate eyelids with finger tips. Flush eyes with flowing water for at least 15 minutes.
Skin Contact: Wash skin with deluge of water for at least 15 minutes. Wash with plenty of soap and water.
Inhalation: Remove to fresh air, contact medical personnel immediately.
Ingestion: If swallowed, induce vomiting as directed by medical personnel.
Note to physician
Treatment: ND
Medical Conditions generally Aggravated by Exposure: ND

Section 5: Fire Fighting Measures
Flash Point: >200
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: ND
DOT Class: Not regulated

Section 6: Accidental Release Measures
Steps to be Taken in Case Material is Released or Spilled: Avoid contact with product. Collect and place in container for proper disposal.
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: Use process enclosures, local exhaust ventilation, or other engineering controls.

Personal Protection Equipment
Respiratory protection: Fume hood.
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.
Skin protection: Appropriate body/skin protective clothing.
Eye protection: The use of eye protection in the form of safety glasses with side shields.
Additional clothing and/or equipment:

Exposure Guidelines
See Composition/Information on Ingredients (Section 3)

Section 9 Physical and Chemical Properties
Appearance and Physical State: Colorless liquid
Odor (threshold):
Specific Gravity (H₂O=1): 1.04
Vapor Pressure (mm Hg): 0.1 mbar @ 20° C
Vapor Density (air= 1): >1
Percent Volatile by volume: ND
Evaporation Rate (butyl acetate=1): ND
Boiling Point: ND
Freezing point / melting point: < 140
pH: ND
Solubility in Water: Miscible
Molecular Weight: NA

Section 10: Stability and Reactivity
Stability: Stable under recommended storage conditions.
Conditions to Avoid: High temperatures.
Materials to Avoid (Incompatibility): Peroxides, azo compounds, heavy metal ions, tertiary amines, sulfur compounds.
Hazardous Decomposition Products: None.
Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information
Results of component toxicity test performed:
Acute Data: LD50 oral rat 5564 mg/Kg; LD50 dermal rabbit >3000 mg/Kg
Human experience: 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: ND
Chemical Fate Information: ND

Section 13 Disposal Considerations
RCRA 40 CFR 261 Classification: None.
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 not listed.
SARA Title III: Substance is not listed.
RCRA: Not listed.
TSCA: All components are listed on the TSCA public inventory.
CERCLA: Not listed.

State Regulations
California Proposition 65: Substance is not listed.

International Regulations
Canada WHMIS: ND
Europe EINECS Numbers: 2-Hydroxyethyl EINECS: 212-782-2
2-Butoxy ethanol EINECS: 203-905-0
4-Methoxyphenol EINECS: 205-769-8

Section 16: Other Information
Label Information: Irritant, Health Hazard
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
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.

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