MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: POWERCRETE J Part B
PRODUCT SYNONYMS
PRODUCT USE: Part B of a 2-Part Epoxy Coating System
PRODUCT/MSDS DISTRIBUTION: United States

MANUFACTURER: Berry Plastics
DIVISION: Corrosion Protection Group
ADDRESS: 11010 Wallisville Road, Houston, TX, 77013

EMERGENCY TELEPHONE NUMBER: CHEMTREC 1-800-424-9300
OTHER TECHNICAL/HEALTH/SAFETY INFORMATION: (713) 676-0085

CHEMICAL FAMILY: This product is a resinous suspension that provides the hardening properties to a 2-part epoxy adhesive.

PRODUCT USE: Part B is a finished product that provides the hardening component in a resinous suspension with an as-designed, intended-use consisting of direct end-use application in a 2-part liquid epoxy coating system in combination with the proper Part A component. When combined with the proper Part A component, the resulting liquid epoxy coating has an end-use application in metal and plastic bonding where corrosion protection is desired (see, Tyco Adhesives Product Installation and Use Instructions that accompany the product).

This product is not considered an Article thus may be regulated under US-OSHA; CAN-WHMIS; IOSH; ISO; UK-CHIP; or EU Directives (67/548/EEC-Dangerous Substance Labeling, 98/24/EC-Chemical Agents at Work, 99/45/EC-Preparation Labeling, 2001/58/EC-MSDS Content), and an MSDS is required for this product considering that when used as recommended or intended, or under ordinary conditions, it may present a health and safety exposure or other hazard.

Additional Information
No additional information. When combined with the proper Part A component, this product is intended for harsh environments, such as wet bonding applications. Please request information if considering non-STP, incompatible-conditions or use beyond current product labeling or instructions. Note that Part B should not be stored/dispensed in high temperature or humid/wet conditions without precaution.

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimethylhexamethylenediamine</td>
<td>25620-58-0</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Modified amine</td>
<td>Proprietary</td>
<td>15 - 40</td>
</tr>
<tr>
<td>Paratertiarybutylphenol</td>
<td>98-54-4</td>
<td>15 - 40</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>111-40-0</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>3 - 7</td>
</tr>
<tr>
<td>Hydrophobic silica</td>
<td>67762-90-7</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

Additional Information
No additional information

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
Warning! Corrosive to skin and eyes. Harmful if absorbed through skin. May cause dermatitis and sensitization and have effects on central nervous system, liver, and kidneys. Avoid contact with skin, eyes, and clothing. Avoid breathing vapor, mist, or spray. Store in tightly closed containers in dry area. Use only with adequate ventilation. Wash thoroughly after handling.

**POTENTIAL HEALTH EFFECTS**

**EYES:** This material is corrosive and can cause severe burns to the eyes. Direct contact or exposure to vapors or mists may cause stinging, tearing, redness, corneal damage and irreversible eye damage. Persons with pre-existing eye disorders may be more susceptible to the effects of this material.

**SKIN:** This material is corrosive and can cause severe burns to the skin. Direct contact can be severely irritating to the skin and may result in swelling, burns and severe skin damage. Skin contact may be harmful. Toxic when absorbed though the skin. Persons with pre-existing skin disorders may be more susceptible to the effects of this material.

**INGESTION:** May be harmful or fatal if swallowed. Ingestion may cause severe irritation and burns of the mouth, throat and digestive tract.

**INHALATION:** Breathing vapors or mists may cause severe irritation and burns of the nose, throat and respiratory tract. Symptoms of overexposure may include coughing, tightness of the chest or shortness of breath. Repeated exposure may cause an allergic respiratory reaction in sensitized individuals. Pre-existing lung disorders (for example asthma-like conditions) may be aggravated by exposure to vapors or mists.

**ACUTE HEALTH HAZARDS:**
Corrosive, may cause burns to eyes, skin, and respiratory tract.

**CHRONIC HEALTH HAZARDS:**
Repeated or prolonged overexposure may cause sensitization. Harmful if absorbed through skin. May have effects on the central nervous system, liver, and kidneys.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:**
Pre-existing eye, skin, and respiratory disorders may be aggravated by exposure.

**Additional Information**
Under certain conditions of use, such as sanding the cured product, dusts may be formed. Contact with dusts may be abrasive and irritating to the eyes, skin and respiratory tract. Prolonged or repeated overexposure to dusts may result in chronic bronchitis (lung inflammation) with symptoms of coughing and shortness of breath. Persons with pre-existing eye and skin disorders may be more susceptible to the effects of dust exposure. Respiratory symptoms associated with pre-existing lung disorders (e.g., asthma conditions) may be aggravated by exposure to dust.

**SECTION 4: FIRST AID MEASURES**

**EYES:** Holding eyelids apart, flush affected eye(s) with clean water for at least 20 minutes. Seek immediate medical attention.

**SKIN:** Under a safety shower, immediately remove contaminated clothing and shoes. Wash affected area(s) with plenty of mild soap and water. Seek immediate medical attention. Discard or decontaminate clothing before reuse and destroy contaminated shoes.

**INGESTION:** DO NOT induce vomiting. If victim is conscious and alert, immediately rinse mouth with water and dilute the ingested material by giving 3-4 glasses of water to drink. Do not give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.

**INHALATION:** If respiratory or other symptoms of exposure develop, move victim to fresh air and seek medical attention. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention. If victim is not breathing, move to fresh air and immediately begin artificial respiration. Keep victim warm and quiet; seek immediate medical attention.

**Additional Information**
Promptly remove wet contaminated non-impervious clothing, wash before reuse. Destroy contaminated leather and absorbent shoes.

**SECTION 5: FIRE-FIGHTING MEASURES**

**Flash Point** > 93.3° C (>200 ° F) CC

**Autoignition temperature** No data available
Lower Explosive Limit (LEL)  No data available
Upper Explosive Limit (UEL)  No data available

Extinguishing Media
Water, foam, dry chemical, carbon dioxide.

Special Fire Fighting Procedures
Fireman should wear self-contained breathing apparatus.

Unusual Fire and Explosion Hazards
Decomposition and combustion products may be toxic.

HMIS HAZARD CLASSIFICATION

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>REACTIVITY</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Additional Information: No additional information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:
Avoid all personal contact. Absorb with sand or other absorbent material. Shovel into closable containers for disposal. Wear appropriate personal protective equipment. Flush contaminated area with water. Avoid discharge to sewer.

Additional Information
No additional information

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE:
Mixing and application should be done in a well-ventilated area. Local exhaust is recommended; general dilution ventilation is acceptable. Avoid all personal contact. Keep containers tightly closed. Wash thoroughly after using. Parts A and B release heat when combined. Store in a cool, well-ventilated area.

OTHER PRECAUTIONS:
Store away from direct sunlight under normal storage conditions of approximately 23C and 50% Relative Humidity to maximize the shelf life of this product and to avoid product degradation prior to use as-intended. Storage at temperatures beyond normal-use conditions may adversely affect product functionality, and elevated temperatures may create hazardous conditions.

Additional Information
Containers, even those that have been emptied, can contain hazardous residues. Protect containers from physical damage to avoid leaks and spills.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:
Use with adequate ventilation.

VENTILATION:
Local exhaust is recommended; general dilution ventilation is acceptable.

RESPIRATORY PROTECTION:
If ventilation is inadequate, use NIOSH approved respirator for organic vapor.

EYE PROTECTION:
Wear chemical goggles.

SKIN PROTECTION:
Wear chemical resistant gloves as a standard procedure to prevent skin contact.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT:
None

EXPOSURE GUIDELINES:

Trimethylhexamethylenediamine
OSHA Permissible Exposure Limit (PEL) Not Established
ACGIH Threshold Limit Value (TLV) Not Established

Modified amine
OSHA Permissible Exposure Limit (PEL) Not Established
ACGIH Threshold Limit Value (TLV) Not Established

Paratertiarybutylphenol
OSHA Permissible Exposure Limit (PEL) Not Established
ACGIH Threshold Limit Value (TLV) Not Established

Diethylenetriamine
OSHA Permissible Exposure Limit (PEL) Not Established
ACGIH Threshold Limit Value (TLV) 1 ppm (skin)

Benzyl alcohol
OSHA Permissible Exposure Limit (PEL) Not Established
ACGIH Threshold Limit Value (TLV) Not Established

Hydrophobic silica
OSHA Permissible Exposure Limit (PEL) 15 mg/m³ (T)
ACGIH Threshold Limit Value (TLV) 5 mg/m³ (R)

ACGIH Threshold Limit Value (TLV) 10 mg/m³ (I)
ACGIH Threshold Limit Value (TLV) 3 mg/m³ (R)

(R) Respirable fraction
(I) Inhalable particles
(T) Total dust
(Skin) Danger of cutaneous absorption

Additional Information No additional information

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Light Brown
ODOR: Amine odor
PHYSICAL STATE: Viscous resinous suspension
pH: 11
BOILING POINT: >200° C (392° F)
FREEZING POINT: Not available
VAPOR PRESSURE: < 22.68 mmHg at 21° C
VAPOR DENSITY (AIR = 1): Not available
SPECIFIC GRAVITY (H2O = 1): 1. +/- 0.02 at 25° C (77° F)
EVAPORATION RATE: Not available
SOLUBILITY IN WATER: Slightly miscible
% VOLATILE BY VOLUME Not available
WATER/OIL PARTITION COEFFICIENT Not available
VISCOSITY (poise @ 25° C) Not available

Additional Information No additional information

SECTION 10: STABILITY AND REACTIVITY

STABILITY: This product is stable under normal conditions at ambient temperature.

INCOMPATIBILITY (MATERIAL TO AVOID): Strong oxidizers and acids.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Hazardous thermal degradation and combustion products include carbon monoxide, carbon dioxide, aldehydes, and nitrogen oxides. Nitrogen oxide can react with water vapor to form corrosive nitric acid. Heating may release ammonia, nitrosamines, and other irritating and toxic compounds.

HAZARDOUS POLYMERIZATION: Will not occur.

Additional Information
Thermal degradation is not significant at temperatures achieved during proper application, as directed by product instructions.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity Values
Oral LD50: (RAT) >500 mg/kg (estimate); Dermal LD50: (Rabbit) >1000 mg/kg (estimate).

Irritancy of Product
Corrosive. Causes eye and skin burns.

Sensitization of Product
Potential sensitizer. No sensitization observed in Guinea pig studies.

Carcinogenicity
The ingredients in this product, present at equal to or greater than 0.1% of the product, are not listed by OSHA, NTP, or IARC as known or suspect carcinogens.

Reproductive Toxicity
None known.

Teratogenicity and Embryotoxicity
None known.

Mutagenicity
None known.

Name of Toxicologically Synergistic Products
None known.

Additional Information
No additional information

SECTION 12: ECOLOGICAL INFORMATION

Discharge to waterways may kill fish. Waste from this product may present long-term environmental hazards, thus landfill disposal must be considered less acceptable than incineration.

Additional Information
This product is not expected to present an ecological hazard when used under reasonable conditions and as-intended/as-designed by the manufacturer.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Follow local, State/Provincial, and Federal/National regulations applicable to as-used, end-of-life characteristics to be determined by end-user. Material may be polymerized in bucket by adding 15 parts of Powercrete J60 Part B to each 100 parts of Powercrete J60 Part A by weight, or 4 parts Part A to 1 part Part B by volume, and thoroughly mix. Set outdoors until mixture is set up and cooled down.

US-EPA HAZARD CLASS: Not Applicable to finished Part A product as manufactured for distribution into commerce.

Additional Information
No additional information. This product is not expected to present a hazard when disposed under reasonable conditions of end-use and in accordance with applicable law.
SECTION 14: TRANSPORT INFORMATION

GROUND – US-DOT/CAN-TDG/EU-ADR/APEC-ADR

Proper Shipping Name Polyamines, liquid, corrosive, n.o.s. (aliphatic polyamines)
Hazard Class Class 8 ID Number UN2735
Packing Group III Labels Corrosive

AIRCRAFT – ICAO-IATA

Proper Shipping Name Polyamines, liquid, corrosive, n.o.s. (aliphatic polyamines)
Hazard Class Class 8 ID Number UN2735
Packing Group III Labels Corrosive

VESSEL – IMO-IMDG

Proper Shipping Name Polyamines, liquid, corrosive, n.o.s. (aliphatic polyamines)
Hazard Class Class 8 ID Number UN2735
Packing Group III Label Corrosive

Additional Information
No additional information. Note that transport requires proper packaging and paperwork, including the Nature and Quantity of goods, per applicable origin/destination/customs points as-shipped.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA Section 8b – Inventory Status: All chemicals comprising this product are either exempt or listed on the TSCA Inventory.

TSCA Section 12b – Export Notification: This product contains the following chemicals subject to TSCA Section 12b export notification.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
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</tbody>
</table>

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT)

Chemicals present in the product at a level which could require reporting under the statute:

<table>
<thead>
<tr>
<th>Chemical</th>
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</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
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</table>

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

This product contains the following chemicals subject to the reporting requirements of Section 313 of SARA Title III.

<table>
<thead>
<tr>
<th>Chemical</th>
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</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
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</table>

CERCLA SECTION 311/312 HAZARD CATEGORIES:

- Fire Hazard: No
- Pressure Hazard: No
- Reactivity Hazard: No
- Immediate Hazard: Yes
- Delayed Hazard: Yes

STATE REGULATIONS

California Proposition 65

This product contains the following chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS No.</th>
<th>% Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
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</tbody>
</table>

Additional Information
No additional information. This product may be regulated under additional regulations and laws not identified above, such as for uses other than described or as-designed/as-intended by the manufacturer, or for distribution outside of the USA.

SECTION 16: OTHER INFORMATION

OTHER INFORMATION
Not Applicable.

Sources of Information
International Agency for Research on Cancer (1987), *IARC Monographs on the Evaluation of Carcinogenic Risks to*
Oficinas México:

Polyken
Prolongación Estadio Azteca No. 16
Col.: El Caracol, C.P.: 04300
México, D.F., Delegación: Coyoacán
Tel.: (55) 5528-0161; (55) 5528-0052
Fax.: (55) 5424-1920
ventasyservicio@polyken.com.mx
direccion@polyken.com.mx

Oficinas en Estados Unidos

Polyken
1211 San Dario Ave. No. 1481
Laredo, Tx. 78040
Tel.: (956) 220-3812

Bodega en Estados Unidos

Polyken
406 Enterprise Rd.
Interamerica Park
Laredo, Tx 78045
Tel.: (956) 727-2491
Fax.: (956) 724-8509
Contacto: Jesús Alberto Marina Delgado