SAFETY DATA SHEET

F-191 REV 1 PART A

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: F-191 REV 1 PART A
GENERAL USE: Polyurethane resin

MANUFACTURER
BJB Enterprises, Inc.
14791 Franklin Avenue
Tustin, CA 92780
Emergency Phone: (714) 734-8450

24 HR. EMERGENCY TELEPHONE NUMBERS
CHEMTREC (USA & Canada): (800) 424-9300
   or (703) 527-3887 CCN# 2820

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS
This product does not meet the criteria for classification.

GHS LABEL
Not Applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyurethane prepolymer</td>
<td>60-100</td>
<td>Proprietary</td>
</tr>
<tr>
<td>1,2-Cyclohexanedicarboxylic acid, 1,2-dinonyl ester, branched and linear</td>
<td>10-30</td>
<td>474919-59-0</td>
</tr>
<tr>
<td>Toluene Diisocyanate</td>
<td>&lt;0.1</td>
<td>26471-62-5</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>&lt;0.001</td>
<td>91-20-3</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

EYES: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation develops.

SKIN: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if irritation or rash develops. Wash clothing before reuse.

INGESTION: If swallowed, call a physician immediately. Do not induce vomiting unless directed to do so by medical personnel. Provided the patient is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops.

NOTES TO PHYSICIAN: Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water spray, carbon dioxide, dry chemical, or foam.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, nitrogen oxides, and hydrogen cyanide.

FIRE FIGHTING PROCEDURES: Cool fire exposed containers with water spray. Remove containers from the fire area if possible. Do not release runoff from fire control methods to sewers or waterways.
**FIRE FIGHTING EQUIPMENT:** Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and consider use of unmanned hose holders or monitor nozzles for fighting large fires.

**6. ACCIDENTAL RELEASE MEASURES**

**SMALL SPILL:** Evacuate the area. Clean-up should only be performed by trained personnel. People dealing with a major spill should wear full protective clothing including appropriate respiratory protection. Prevent product spill from entering sewers or waterways. Neutralize small spills with a decontaminant.

**LARGE SPILL:** Contain and absorb large spills onto an inert, non-flammable adsorbent carrier (such as earth or sand). Shovel into open-top drums or plastic bags for further decontamination, if necessary. Wash the spill area clean with a liquid decontaminant. Remove and properly dispose of residues. Notify applicable government authorities if release is reportable. (See CERCLA in Section 15).

**ENVIRONMENTAL PRECAUTIONS**

**WATER SPILL:** Do not discharge into drains or rivers.

**GENERAL PROCEDURES:** Refer to section 8 of SDS for personal protection details.

**RELEASE NOTES:** Composition and extent of any spill should be evaluated against local regulations and reported to the proper agencies, if necessary.

**7. HANDLING AND STORAGE**

**GENERAL PROCEDURES:** Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Avoid breathing vapor over open containers. Avoid open container exposure to damp air. Avoid breathing aerosols, mists, and vapors.

**HANDLING:** Use appropriate personal protective equipment as specified in Section 8. Handle in a well-ventilated area. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

**STORAGE:** Store in a dry and well-ventilated place, away from excessive heat, in original or similar container. Avoid unnecessary contact. Protect from freezing. Containers should be tightly sealed to prevent contamination with foreign materials.

**STORAGE TEMPERATURE:** 65-80°F (18-27°C)

**SHELF LIFE:** 6 months from date of shipment under manufacturers recommended storage conditions.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**
### Exposures Guidelines

#### OSHA Hazardous Components (29 CFR1910.1200)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyurethane prepolymer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2-Cyclohexanedicarboxylic acid, 1,2-dinonyl ester, branched and linear</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toluene Diisocyanate</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Naphthalene</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Type</th>
<th>ppm</th>
<th>mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyurethane prepolymer</td>
<td>OSHA PEL</td>
<td>TWA</td>
<td>-</td>
</tr>
<tr>
<td>1,2-Cyclohexanedicarboxylic acid, 1,2-dinonyl ester, branched and linear</td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>-</td>
</tr>
<tr>
<td>Toluene Diisocyanate</td>
<td>ACGIH TLV</td>
<td>STEL</td>
<td>0.005</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>NIOSH REL</td>
<td>TWA</td>
<td>-</td>
</tr>
</tbody>
</table>

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** Safety goggles or glasses are recommended. Plastic face shields should be used for complete face protection to protect against possible splashing or spraying of material. ANSI Z87.1 or approved equivalent.

**SKIN:** Chemical-resistant gloves and chemical goggles, face-shield, and synthetic apron or coveralls should be used to prevent contact with eyes, skin, or clothing. Wear nitrile or neoprene gloves. Chemical resistant gloves lined with polyethylene offer maximum protection.

**RESPIRATORY:** Exhaust ventilation recommended. An organic vapor cartridge or fresh air supplied respirator (NIOSH approved) may be necessary for certain applications. Consider the type of application, environmental concentrations, and other materials being used concurrently when determining respirator use and selection. Observe OSHA regulations for respirator use (29 CFR 1910.134).

**PROTECTIVE CLOTHING:** Protective clothing should be selected and used in accordance with 'Guidelines for the Selection of Chemical Protective Clothing' published by ACGIH.
WORK HYGIENIC PRACTICES: Contaminated clothing should be changed and washed before reuse. Eating, drinking and smoking in immediate work area should be prohibited. Wash hands before eating.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Training is important. Follow all label precautions.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Viscous liquid

ODOR: Slight

COLOR: Pale yellow

pH: No data available

PERCENT VOLATILE: 0.18

FLASH POINT AND METHOD: > 160°C (320°F) Pensky-Martens CC

VAPOR PRESSURE: No data available

VAPOR DENSITY: No data available

BOILING POINT: No data available

SOLUBILITY IN WATER: Reacts slightly with water

SPECIFIC GRAVITY: 1.067 (water=1) at 25°C (77°F)

VISCOSITY #1: 4450 Centipoise at 25°C (77°F)

(VOC): < 1.93 g/l Calculated. Theoretical VOC minus water and exempt solvents.

10. STABILITY AND REACTIVITY

REACTIVITY: Hazardous reactions will not occur under normal transport or storage conditions.

STABILITY: This product is stable under normal ambient conditions of temperature and pressure.

CONDITIONS TO AVOID: High temperatures, moisture, and freezing conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: Reaction with water produces carbon dioxide.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, nitrogen oxides, and hydrogen cyanide.

INCOMPATIBLE MATERIALS: Water, alcohols, and oxidizing agents.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ORAL LD₅₀</th>
<th>DERMAL LD₅₀</th>
<th>INHALATION LC₅₀</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyurethane prepolymer</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>1,2-Cyclohexanedicarboxylic acid, 1,2-dinonyl ester, branched and linear</td>
<td>&gt; 5000 mg/kg Rat</td>
<td>&gt; 2000 mg/kg Rat</td>
<td>No data available</td>
</tr>
<tr>
<td>Toluene Diisocyanate</td>
<td>3360 mg/kg Rat</td>
<td>10000 mg/kg Rabbit</td>
<td>0.35 mg/l Rat</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>490 mg/kg Rat</td>
<td>20000 mg/kg Rabbit</td>
<td>&gt; 0.4 mg/l Rat (4 h)</td>
</tr>
</tbody>
</table>

SKIN CORROSION/IRRITATION: No data available

SERIOUS EYE DAMAGE/IRRITATION: No data available

RESPIRATORY OR SKIN SENSITISATION: No data available

GERM CELL MUTAGENICITY: No data available

CARCINOGENICITY
F-191 REV 1 PART A

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NTP Status</th>
<th>IARC Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene Diisocyanate</td>
<td>2</td>
<td>2B</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>2</td>
<td>2B</td>
</tr>
</tbody>
</table>

REPRODUCTIVE TOXICITY: No data available  
STOT-SINGLE EXPOSURE: No data available  
STOT-REPEATED EXPOSURE: No data available  
ASPIRATION HAZARD: No data available

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No data available  
ECOTOXICOLOGICAL INFORMATION: No specific ecological data are available for this product. Refer to Section 6 for information regarding accidental release and Section 15 for regulatory reporting information.  
BIOACCUMULATION/ACCUMULATION: No data available  
DISTRIBUTION: No data available  
CHEMICAL FATE INFORMATION: No data available

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protections and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION): Not Regulated  
AIR (ICAO/IATA): Not Regulated  
VESSEL (IMO/IMDG): Not Regulated

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)  
311/312 HAZARD CATEGORIES: None Known  
313 REPORTABLE INGREDIENTS: This product does not contain any substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT)  
CERCLA REGULATORY: For this/these chemicals, release of more than the Reportable Quantity to the environment in a 24-hour period requires notification to the National Response Center (800-424-8802 or 202-426-2675):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>CERCLA RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene Diisocyanate</td>
<td>&lt; 0.1</td>
<td>100 lbs.</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>&lt; 0.001</td>
<td>100 lbs.</td>
</tr>
</tbody>
</table>

TSCA (TOXIC SUBSTANCE CONTROL ACT)  
TSCA STATUS: This product or its components are listed in or exempt from the TSCA inventory requirements.

CLEAN AIR ACT
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR 1910.119—PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: None of the chemicals in this product are considered highly hazardous by OSHA.

CALIFORNIA PROPOSITION 65: This product contains chemical(s) which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene Diisocyanate</td>
<td>&lt; 0.1</td>
<td>Cancer</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>&lt; 0.001</td>
<td>Cancer</td>
</tr>
</tbody>
</table>


CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): This product has been classified according to the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

DOMESTIC SUBSTANCE LIST (INVENTORY): All components in this product are listed in or exempted from the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

GENERAL COMMENTS: No data available

16. OTHER INFORMATION

REASON FOR ISSUE: New Issue

Date Prepared: 10/26/2017

HMIS RATING

HEALTH 1
FLAMMABILITY 1
PHYSICAL HAZARD 0
PERSONAL PROTECTION X

NFPA CODES

1 1 0

HMIS RATINGS NOTES: Personal Protection: See Section 8

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