MATERIAL SAFETY DATA SHEET

Date Issued: 12/22/2009
MSDS No: SC-105 FLUSH SOLVENT
Date-Revised: 04/04/2011
Revision No: 1

SC-105 FLUSH SOLVENT

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SC-105 FLUSH SOLVENT
GENERAL USE: Flushing solvent
CHEMICAL FAMILY: Hydrocarbon mixture

MANUFACTURER
BJB Enterprises, Inc.
14791 Franklin Avenue
Tustin, CA 92780

Customer Service Number: (714) 734-8450
Fax: (714) 734-8929

24 HR. EMERGENCY TELEPHONE NUMBERS
CHEMTREC (US Transportation): (800) 424-9300
or (703) 527-3887

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE AND ODOR: Clear colorless liquid with mild aromatic odor.

IMMEDIATE CONCERNS: Combustible. Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited. Material can accumulate static charges which may cause an incendiary electrical discharge. Keep away from heat and sources of ignition. Avoid eye and skin contact. Avoid breathing vapors. May cause eye and skin irritation. Use in well ventilated areas.

POTENTIAL HEALTH EFFECTS

EYES: May cause irritation, tearing, reddening, and swelling.

SKIN: May cause irritation and possible allergic sensitivity. Skin inflammation is characterized by itching, scaling, or reddening.

INGESTION: May be harmful if swallowed.

INHALATION: Breathing large amounts may be harmful. Symptoms are more typically seen at air concentrations exceeding the recommended exposure limits. Symptoms of exposure may include: initial Central Nervous System excitation (euphoria, exhilaration, light-headedness) followed by CNS depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other CNS effects: confusion, impaired coordination, coma, and death.

ROUTES OF ENTRY: Eye and skin contact, inhalation of vapors, or accidental ingestion.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic hydrocarbon</td>
<td>30 - 35</td>
<td>64742-94-5</td>
</tr>
<tr>
<td>Distillates, Petroleum, Hydrotreated Light</td>
<td>30 - 35</td>
<td>64742-47-8</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>10 - 15</td>
<td>111-76-2</td>
</tr>
<tr>
<td>N-Methylpyrrolidone</td>
<td>10 - 15</td>
<td>872-50-4</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>1 - 5</td>
<td>84-74-2</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>3.2</td>
<td>91-20-3</td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>0.55</td>
<td>95-63-6</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

**EYES:** Immediately rinse with water. Remove contact lenses. Hold eyelids apart and flush eyes with water for at least 15 minutes. Get immediate medical attention.

**SKIN:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**INGESTION:** If swallowed, call a physician immediately. Do NOT induce vomiting. Provided the patient is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove patient from exposure, keep warm and at rest. Obtain immediate medical attention. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, oxygen should be administered by qualified personnel. Apply artificial respiration if breathing has ceased or shows signs of failing.

**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

**FLASHPOINT AND METHOD:** 68.3°C (155°F) Pensky-Martens CC

**EXTINGUISHING MEDIA:** Dry chemical, foam, or carbon dioxide.

**EXPLOSION HAZARDS:** Combustible liquid: Keep away from heat, sparks, and open flame. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point.

**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.

**SENSITIVE TO STATIC DISCHARGE:** This material can accumulate static charges which can cause an incendiary electrical discharge.

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 (earth or sand). Do not use combustible materials such as saw dust. Use only spark resistant and explosion proof recovery devices. 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).

**RELEASE NOTES:** US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Combustible liquid. 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:** Keep away from heat, sparks, open flames, or other sources of ignition. Store in a cool, dry 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.

**SHELF LIFE:** 12 months from date of shipment under manufacturers recommended storage conditions.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
### Exposition Guidelines

#### OSHA Hazardous Components (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Supplier OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
<td>ppm</td>
</tr>
<tr>
<td>Aromatic hydrocarbon</td>
<td>TWA NE</td>
<td>NE NE</td>
<td>NE NE</td>
</tr>
<tr>
<td></td>
<td>STEL NE</td>
<td>NE NE</td>
<td>NE NE</td>
</tr>
<tr>
<td>Distillates, Petroleum, Hydrotreated Light</td>
<td>TWA NE</td>
<td>NE NE</td>
<td>NE NE</td>
</tr>
<tr>
<td></td>
<td>STEL NE</td>
<td>NE NE</td>
<td>NE NE</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>TWA 50</td>
<td>240</td>
<td>20 97</td>
</tr>
<tr>
<td></td>
<td>STEL NE</td>
<td>NE NE</td>
<td>NE NE</td>
</tr>
<tr>
<td>N-Methylpyrrolidone</td>
<td>TWA NE</td>
<td>NE NE</td>
<td>NE NE</td>
</tr>
<tr>
<td></td>
<td>STEL NE</td>
<td>NE NE</td>
<td>NE NE</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>TWA NE</td>
<td>5 NE</td>
<td>5 NE</td>
</tr>
<tr>
<td></td>
<td>STEL NE</td>
<td>NE NE</td>
<td>NE NE</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>TWA 10</td>
<td>50</td>
<td>10 52</td>
</tr>
<tr>
<td></td>
<td>STEL NE</td>
<td>NE NE</td>
<td>15 79</td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>TWA NE</td>
<td>NE NE</td>
<td>25 123</td>
</tr>
<tr>
<td></td>
<td>STEL NE</td>
<td>NE NE</td>
<td>NE NE</td>
</tr>
</tbody>
</table>

**OSHA Table Comments:**
1. NIOSH REL

**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:** Liquid

**Odor:** Mild aromatic

**Color:** Colorless
SC-105 FLUSH SOLVENT

pH: Not Applicable
PERCENT VOLATILE: 52.9
VAPOR PRESSURE: < 1 mmHg at 20°C (68°F)
VAPOR DENSITY: Heavier than air
BOILING POINT: > 171°C (340°F)
FLASHPOINT AND METHOD: 68.3°C (155°F) Pensky-Martens CC
SOLUBILITY IN WATER: Partially Soluble
SPECIFIC GRAVITY: 0.881 (water=1) at 21°C (70°F)
VISCOSITY: 15 Centipoise at 25°C (77°F)
VOC (Volatile Organic Compound): 466.000 g/l Calculated. Theoretical VOC minus water and exempt solvents.

10. STABILITY AND REACTIVITY

STABILITY: This product is stable under normal ambient conditions of temperature and pressure.
CONDITIONS TO AVOID: Ignition sources such as open flames, sparks, static discharges or glowing metal surfaces.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, aldehydes, ketones, and organic acids.
INCOMPATIBLE MATERIALS: Avoid contact with strong oxidizing agents and acids.

11. TOXICOLOGICAL INFORMATION

TOXICITY TO ANIMALS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ORAL LD&lt;sub&gt;50&lt;/sub&gt; (rat)</th>
<th>DERMAL LD&lt;sub&gt;50&lt;/sub&gt; (rabbit)</th>
<th>INHALATION LC&lt;sub&gt;50&lt;/sub&gt; (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic hydrocarbon</td>
<td>Not Established</td>
<td>&gt; 2000 mg/kg</td>
<td>Not Established</td>
</tr>
<tr>
<td>Distillates, Petroleum, Hydrotreated Light</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>2- Butoxyethanol</td>
<td>1746 mg/kg</td>
<td>Not Established</td>
<td>700 ppm (7h) Rat, Vapor</td>
</tr>
<tr>
<td>N-Methylpyrrolidone</td>
<td>4990 mg/kg</td>
<td>8 mg/kg</td>
<td>&gt; 5.1 mg/l (4 h)</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>20000 to 25000 mg/kg</td>
<td>&gt; 20960 mg/kg</td>
<td>Not Established</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>490 mg/kg</td>
<td>&gt; 20 g/kg</td>
<td>Not Established</td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>12.7 g/kg</td>
<td>Not Established</td>
<td>18 g/m3</td>
</tr>
</tbody>
</table>

CARCINOGENICITY

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NTP Status</th>
<th>IARC Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2- Butoxyethanol</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>2</td>
<td>2B</td>
</tr>
</tbody>
</table>

IARC: This product contains substances that are classified as possible carcinogens to humans.

12. ECOLOGICAL INFORMATION

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.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: The generation of waste should be avoided or minimized wherever possible. Disposal should be in accordance
with local, state, provincial or national regulations.

**EMPTY CONTAINER:** Containers must be emptied (as defined by RCRA, 40 CFR Section 261.7 or state regulations that may be more stringent) and either passed to an approved recycler or destroyed.

### 14. TRANSPORT INFORMATION

**DOT (DEPARTMENT OF TRANSPORTATION) LAND**

*NOTE:* 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:** Acute health hazard. Chronic health hazard

**313 REPORTABLE INGREDIENTS:** This product contains the following 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:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-Methylpyrrolidone</td>
<td>10 - 15</td>
<td>872-50-4</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>1 - 5</td>
<td>84-74-2</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>3.2</td>
<td>91-20-3</td>
</tr>
</tbody>
</table>

**CERCLA (COMPREHENSIVE 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>Dibutyl phthalate</td>
<td>1 - 5</td>
<td>10 lbs.</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>3.2</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.

**OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)**

**29 CFR1910.119--PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS:** None of the chemicals in this product are considered highly hazardous by OSHA.

**REGULATIONS**

**STATE REGULATIONS:** 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):

**CALIFORNIA PROPOSITION 65**
### Chemical Name and Wt.% Listed

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>Listed</th>
</tr>
</thead>
</table>
| N-Methylpyrrolidone         | 10 - 15 | ● Cancer  
● Developmental Toxicity |
| Dibutyl phthalate           | 1 - 5   | ● Cancer  
● Developmental Toxicity  
● Female Reproductive  
● Male Reproductive |
| Naphthalene                 | 3.2   | Cancer                                      |

**OSHA HAZARD COMM. RULE:** The contents of the MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**CANADA**

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

**WHMIS CLASS:** B4, D2A, D2B

**DOMESTIC SUBSTANCE LIST (INVENTORY):** All components in this product are included on the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

### 16. OTHER INFORMATION

**REASON FOR ISSUE:** Revision

**APPROVED BY:** Michael Rose    **TITLE:** R & D Manager

**PREPARED BY:** Gus Alidad

**REVISION SUMMARY:** Sections Revised: 1, 2, 9, 15

**HMIS RATING**

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
<th>PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>*2</td>
<td>2</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

**HMIS RATINGS NOTES:** Personal Protection: See Section 8

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