

SAFETY DATA SHEET



Date Issued : 06/04/2012

MSDS No : CHALLENGE 90

CHALLENGE 90

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CHALLENGE 90
GENERAL USE: Release agent
CHEMICAL FAMILY: Polymer resin solution

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: Beige liquid with a solvent odor.

IMMEDIATE CONCERNS: WARNING! Flammable Liquid. Keep away from heat, sparks, and flames. Vapors can travel to a source of ignition and flash back. Unvented containers may develop pressure on prolonged exposure to heat. Eye irritation or injury may result from exposure to this product. Prolonged contact may cause skin irritation. May be harmful if swallowed.

POTENTIAL HEALTH EFFECTS

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

SKIN: Prolonged or repeated contact may cause skin irritation.

INGESTION: Harmful if swallowed.

INHALATION: Harmful if inhaled. Prolonged, repeated, or high exposures may cause weakness and depression of the central nervous system. In extreme cases, drowsiness and possibly loss of consciousness may occur. Inhalation may cause irritation to the respiratory tract (nose, mouth, mucous membrane). This product may cause nose and throat irritation. May affect the brain or nervous system causing dizziness, headache or nausea.

CHRONIC TOXICITY

CHRONIC EFFECTS: Prolonged or repeated exposure may cause damage to the central nervous system and may result in permanent brain damage. Symptoms include: loss of memory, loss of judgement, and loss of coordination. Exposure to organic solvents during pregnancy may cause an increased risk of birth defects.

MEDICAL CONDITIONS AGGRAVATED: Pre-existing disorders of the following organs may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions), liver, and kidney.

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

CHALLENGE 90

| Chemical Name | Wt.% | CAS |
|---|---------|------------|
| Low Boiling Point Naphtha - Solvent Naphtha (petroleum), Light Aliph. | 15 - 25 | 64742-89-8 |
| Xylene | 15 - 25 | 1330-20-7 |
| Distillates, Petroleum, Hydrotreated Light | 10 - 20 | 64742-47-8 |
| 2-butanone | 10 - 15 | 78-93-3 |
| Acetone | 10 - 15 | 67-64-1 |
| Toluene | 5 - 10 | 108-88-3 |

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: Do not induce vomiting. Aspiration into the lungs can cause serious damage. Seek medical attention immediately. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Do not induce vomiting unless instructed by a physician.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

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: < 23°C (73°F) COC (Cleveland Open Cup)

GENERAL HAZARD: Flammable liquid and vapor.

EXTINGUISHING MEDIA: Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and carbon dioxide.

EXPLOSION HAZARDS: Temperatures at or above the flash point could generate combustible mixtures. Avoid all ignition sources. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.** Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

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: Eliminate sources of ignition. 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.

CHALLENGE 90**7. HANDLING AND STORAGE**

GENERAL PROCEDURES: Flammable 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 in a well ventilated area. Avoid heat, sparks, and open flames. Avoid breathing dust. Avoid breathing vapor and contact with eyes, skin, and clothing. To reduce potential for static discharge, bond and ground containers when transferring material. Hazardous residue may remain in emptied container. Do not reuse empty containers without commercial cleaning or reconditioning. Use appropriate personal protective equipment as specified in Section 8. 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. Do not store portable containers in direct sunlight. Keep containers closed when not in use. For maximum storage life, store at temperatures below 50 degree Fahrenheit. Store away from incompatible materials. (see section 10)

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

ELECTROSTATIC ACCUMULATION HAZARD: This material can accumulate static charges which can cause an incendiary electrical discharge. Use proper bonding and/or grounding procedure.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**EXPOSURE GUIDELINES**

| OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200) | | | | | | | |
|---|------|-----------------|-------------------|-----------|-------------------|--------------------|--------------------|
| | | EXPOSURE LIMITS | | | | | |
| | | OSHA PEL | | ACGIH TLV | | Supplier OEL | |
| Chemical Name | | ppm | mg/m ³ | ppm | mg/m ³ | ppm | mg/m ³ |
| Low Boiling Point Naphtha - Solvent Naphtha (petroleum), Light Aliph. | TWA | NE | NE | NE | NE | NE | NE |
| | STEL | NE | NE | NE | NE | NE | NE |
| Xylene | TWA | 100 | 435 | 100 | 434 | NE | NE |
| | STEL | NE | NE | 150 | 651 | NE | NE |
| Distillates, Petroleum, Hydrotreated Light | TWA | NE | NE | NE | NE | NE | NE |
| | STEL | NE | NE | NE | NE | NE | NE |
| 2-butanone | TWA | 200 | 590 | 200 | 590 | 200 ^[1] | 590 ^[1] |
| | STEL | NE | NE | 300 | 885 | 300 ^[1] | 885 ^[1] |
| Acetone | TWA | 1000 | 2400 | 500 | NE | NE | NE |
| | STEL | NE | NE | 750 | NE | NE | NE |
| Toluene | TWA | 200 | NE | 50 | 188 | 100 ^[1] | 375 ^[1] |
| | STEL | 300 | NE | NE | NE | 150 ^[1] | 560 ^[1] |
| 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

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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: Solvent

COLOR: Biege

pH: Not Applicable

PERCENT VOLATILE: 92

VAPOR PRESSURE: > 10 mmHg at 20°C (68°F)

VAPOR DENSITY: Not Established

BOILING POINT: 49°C (120°F) to 71°C (160°F)

FLASHPOINT AND METHOD: < 23°C (73°F) COC (Cleveland Open Cup)

SOLUBILITY IN WATER: Insoluble

SPECIFIC GRAVITY: 0.820 (water=1) at 25°C (77°F)

VISCOSITY: < 100 Centipoise at 25°C (77°F)

VOC (Volatile Organic Compound): 754.000 g/l Calculated. Theoretical VOC minus water and exempt solvents.

10. STABILITY AND REACTIVITY

STABILITY: This product is stable under the recommended storage conditions.

POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid heat, sparks, open flames and other ignition sources.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and carbon dioxide.

INCOMPATIBLE MATERIALS: Avoid contact with strong oxidizing agents and acids.

11. TOXICOLOGICAL INFORMATION**TOXICITY TO ANIMALS**

| Chemical Name | ORAL LD ₅₀ (rat) | DERMAL LD ₅₀ (rabbit) | INHALATION LC ₅₀ (rat) |
|---|--------------------------------|-------------------------------------|--------------------------------------|
| Low Boiling Point Naphtha - Solvent Naphtha (petroleum), Light Aliph. | Not Established | Not Established | Not Established |
| Xylene | 4300 mg/kg | 14 100 uL/kg | 4550 ppm (4 h) |
| Distillates, Petroleum, Hydrotreated Light | Not Established | Not Established | Not Established |
| 2-butanone | Not Established | Not Established | Not Established |
| Acetone | Not Established | Not Established | Not Established |
| Toluene | 636 mg/kg | 2 to 14 g/kg | 26700 ppm (1h) |

CARCINOGENICITY

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| Chemical Name | IARC Status |
|---------------|-------------|
| Toluene | 3 |

IARC: This product contains substances that are not classifiable as 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. 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) LAND**

PROPER SHIPPING NAME: Flammable liquids, n.o.s.

TECHNICAL NAME: (xylene, ketone solution)

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: UN 1993

PACKING GROUP: II

ERG CODE: 128

LABEL: Flammable liquid

AIR (ICAO/IATA)

SHIPPING NAME: Flammable liquid, n.o.s.

TECHNICAL NAME: (xylene, ketone solution)

UN/NA NUMBER: UN 1993

PRIMARY HAZARD CLASS/DIVISION: 3

PACKING GROUP: II

ERG CODE: 3H

LABEL: Flammable liquid

VESSEL (IMO/IMDG)

SHIPPING NAME: Flammable liquid, n.o.s.

TECHNICAL NAME: (xylene, ketone solution)

UN/NA NUMBER: UN 1993

PRIMARY HAZARD CLASS/DIVISION: 3

PACKING GROUP: II

LIMITED QUANTITY: 1L

LABEL: Flammable liquid

SPECIAL PROVISIONS: EmS: F-E, S-E

15. REGULATORY INFORMATION

UNITED STATES

CHALLENGE 90**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

311/312 HAZARD CATEGORIES: Acute health hazard. Chronic health hazard. Fire 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:

EPCRA SECTION 313 SUPPLIER NOTIFICATION

| Chemical Name | Wt. % | CAS |
|---------------|---------|-----------|
| Xylene | 15 - 25 | 1330-20-7 |
| Toluene | 5 - 10 | 108-88-3 |

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):

| Chemical Name | Wt. % | CERCLA RQ |
|---------------|---------|------------|
| Xylene | 15 - 25 | 100 lbs. |
| 2-butanone | 10 - 15 | 5,000 lbs. |
| Acetone | 10 - 15 | 5,000 |
| Toluene | 5 - 10 | 1,000 lbs. |

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: 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 | Wt. % | Listed |
|---------------|--------|--|
| Toluene | 5 - 10 | <ul style="list-style-type: none"> ● Cancer ● Developmental Toxicity |

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

CANADA**WHMIS HAZARD SYMBOL AND CLASSIFICATION**

Flammable Liquid



Toxic

Class D-2A: Material causing other toxic effects (Very toxic).

Class D-2B: Material causing other toxic effects (Toxic).

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.

EUROPEAN COMMUNITY

CHALLENGE 90**EEC LABEL SYMBOL AND CLASSIFICATION**

"F+" - Extremely flammable



"Xn" - Harmful

RISK PHRASES

R11: Highly flammable.
 R20/21: Harmful by inhalation and in contact with skin.
 R36/37/38: Irritating to eyes, respiratory system and skin.
 R45: May cause cancer.
 R46: May cause heritable genetic damage.
 R63: Possible risk of harm to the unborn child.
 R65: Harmful: may cause lung damage if swallowed.
 R66: Repeated exposure may cause skin dryness or cracking.
 R67: Vapors may cause drowsiness and dizziness.

SAFETY PHRASES

S1/2: Keep locked up and out of reach of children.
 S23: Do not breathe fumes/vapour/spray.
 S24: Avoid contact with skin.
 S25: Avoid contact with eyes.
 S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S36/37: Wear suitable protective clothing and gloves.
 S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S46: If swallowed, seek medical advice immediately and show this container or label.
 S53: Avoid exposure - obtain special instructions before use.
 S62: If swallowed, do not induce vomiting : seek medical advice immediately and show this container or label.

16. OTHER INFORMATION

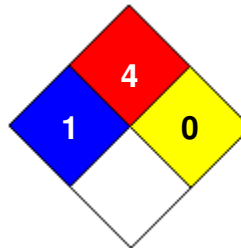
REASON FOR ISSUE: Revised format

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

PREPARED BY: Gus Alidad

HMIS RATING

| | | |
|----------------------------|---|----------|
| HEALTH | * | 2 |
| FLAMMABILITY | | 3 |
| PHYSICAL HAZARD | | 0 |
| PERSONAL PROTECTION | | X |

NFPA CODES

HMIS RATINGS NOTES: Personal Protection: See Section 8

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