

# EPOXYMASTER® MATERIAL SAFETY DATA SHEET

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FLEXIBLE JOINT FAST SET (Part A)  
PRODUCT CODES: EM-FJFST

MANUFACTURER: EpoxyMaster  
STREET ADDRESS: 755 W. Big Beaver Rd., Suite 2020  
CITY, STATE, ZIP: Troy, MI 48084-4726

INFORMATION PHONE: 888-376-9954  
EMERGENCY PHONE: Chemtrec 800-424-9300  
FAX PHONE: 248-373-0001

PREPARED BY: EpoxyMaster

DATE REVISED: 12/21/09

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
CASTOR OIL	8001-79-4	NONE	NONE	NONE	
2-OXEPANONE, POLYMER WITH 2,2'-OXYBIS [ETHANOL]	36890-68-3	NONE	NONE	NONE	
2-OXYPANONE, 2-ETHYL-2-(HYDROXYMETHYL) -1,3-PROPANE	37625-56-2	NONE	NONE	NONE	
PIGMENT NON HAZARDOUS IN LIQUID FORM	UNKNOWN	10mg/m3	10mg/m3	5mg/m3	
PROPRIETARY NON HAZARDOUS ADDITIVES RHEOLOGICAL ADDITIVE	UNKNOWN	NONE	NONE	NONE	
-NON HAZARDOUS IN LIQUID FORM	UNKNOWN	NONE	NONE	NONE	

SECTION 2 NOTES: NO TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CFR 372 ARE PRESENT.

## SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MEDIUM VISCOSITY CLEAR LIQUID – NEGLIGIBLE ODOR  
BOILING POINT OR RANGE: N/A  
VAPOR DENSITY (AIR = 1): N/A  
SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 1.1  
EVAPORATION RATE: N/A  
SOLUBILITY IN WATER: NEGLIGIBLE

## SECTION 4: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% by volume) UPPER: not available  
LOWER: not available  
FLASH POINT: 200+F  
METHOD USED: SETA FLASH  
EXTINGUISHING MEDIA: FOAM, ALCOHOL FOAM, CO<sub>2</sub>, DRY CHEMICAL, WATER FOG  
SPECIAL FIRE FIGHTING PROCEDURES: TOXIC FUMES WILL BE EVOLVED WHEN THIS MATERIAL IS INVOLVED IN A FIRE. A SELF CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR FIRE FIGHTERS. COOL ALL FIRE EXPOSED CONTAINERS WITH WATER.  
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE KNOWN.

## SECTION 5: STABILITY AND REACTIVITY

STABILITY:  
STABLE  
CONDITIONS TO AVOID (STABILITY):

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AVOID CONTACT WITH OPEN FLAMES AND ALL SOURCES OF IGNITIONS AND SPARKS.

INCOMPATIBILITY (MATERIAL TO AVOID):

AVOID CONTACT WITH STRONG OXIDIZING AGENTS OR MATERIALS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CARBON MONOXIDE, CARBON DIOXIDE AND NITROGEN COMPOUNDS.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

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## SECTION 6: HAZARDS IDENTIFICATION

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HMIS HAZARD CLASSIFICATION

HEALTH: 2      FLAMMABILITY: 1      REACTIVITY: 0      PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS

EYES:

HIGH VAPOR CONCENTRATION CAN CAUSE SEVERE IRRITATION TO THE EYES, NOSE OR THROAT.

SKIN:

CAN CAUSE IRRITATION TO SKIN.

INGESTION:

LIQUID CAN CAUSE IRRITATION TO THE MUCOUS MEMBRANES IF SWALLOWED.

INHALATION:

HIGH VAPOR CONCENTRATION CAN CAUSE SEVERE IRRITATION TO THE RESPIRATORY TRACT.

HEALTH HAZARDS (ACUTE AND CHRONIC):

PROLONGED OR REPEATED EXPOSURE MAY CAUSE ASTHMA AND SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.

CARCINOGENICITY

OSHA: NO      NTP: NO      IARC: NO

ADDITIONAL CARCINOGENICITY INFORMATION:

NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

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## SECTION 7: FIRST AID MEASURES

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EYES:

IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST FIFTEEN MINUTES WHILE LIFTING UPPER AND LOWER LIDS. GET IMMEDIATE MEDICAL ATTENTION.

SKIN:

FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES AND REMOVE ALL CONTAMINATED CLOTHING IMMEDIATELY. GET MEDICAL ATTENTION IF REDDENING OR SWELLING OCCURS.

INGESTION:

DO NOT INDUCE VOMITTING. DILUTE BY GIVING WATER TO DRINK IF VICTIM IS CONSCIOUS. GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION:

REMOVE VICTIM TO FRESH AIR IF EFFECTS PERSIST AND ADMINISTER OXYGEN IF NECESSARY.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

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## SECTION 8: RELEASE MEASURES

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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

AVOID CONTACT WITH MATERIAL. WEAR THE APPROPRIATE SAFETY EQUIPMENT. STOP SPILL AT SOURCE, DYKE AREA TO PREVENT SPREADING. PUMP LIQUID TO SALVAGE TANK. TAKE UP THE REMAINDER WITH AN ABSORBENT SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS.

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## SECTION 9: WASTE DISPOSAL

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WASTE DISPOSAL METHOD:

DISPOSE OF THE MATERIAL IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAW.

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## SECTION 10: HANDLING AND STORAGE

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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS. RESEAL PARTIALLY USED CONTAINERS. PROPERLY LABEL ALL CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. OBSERVE GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICES.

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## OTHER PRECAUTIONS:

MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS OF ALL COMPONENTS TO BECOME FAMILIAR WITH ALL HAZARDS PRIOR TO USING THIS PRODUCT.

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## SECTION 11: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### RESPIRATORY PROTECTION:

NIOSH APPROVED RESPIRATOR REQUIRED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROLS. FOR EMERGENCIES A SELF-CONTAINED BREATHING APPARATUS OR A FULL FACE RESPIRATOR IS RECOMMENDED.

### VENTILATION:

AVOID BREATHING VAPORS. VENTILATION MUST BE SUFFICIENT TO CONTROL VAPORS

### PROTECTIVE GLOVES:

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

### EYE PROTECTION:

SPLASH PROOF GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS

### OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

CLEAN BODY COVERING CLOTHING AS WELL AS APRON, FOOTWEAR EQUIPMENT SHOULD BE USED AS DEEMED NECESSARY TO AVOID CONTACT WITH THE MATERIAL.

### WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

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## SECTION 12: DISCLAIMER

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**DISCLAIMER:** The information Contained herein is based on the data available and is believed to be accurate, however, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.

# EPOXYMASTER® MATERIAL SAFETY DATA SHEET

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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PRODUCT CODES: EM-FJFST

MANUFACTURER: EpoxyMaster  
STREET ADDRESS: 755 W. Big Beaver Rd., Suite 2020  
CITY, STATE, ZIP: Troy, MI 48084-4726

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## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
4, 4'-DIPHENYLMETHANE DIISOCYANATE	101-68-8	0.02 PPM	0.005PPM	0.02 PPM	
MODIFIED 4, 4'-MDI		NOT LISTED	NONE	NONE	NONE
4, 4'-MDI HOMOPOLYMER	25686-28-6	NONE	NONE	NONE	

### SECTION 2 NOTES:

\*\*\*No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.\*\*\*

## SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:  
MEDIUM VISCOSITY LIQUID  
BOILING POINT OR RANGE: N/A  
VAPOR DENSITY (AIR = 1): N/A  
SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 1.1  
EVAPORATION RATE: N/A  
SOLUBILITY IN WATER: NEGLIGIBLE

### SECTION 3 NOTES:

## SECTION 4: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% by volume) UPPER: not available  
LOWER: not available

FLASH POINT: 200+F

METHOD USED:  
SETA FLASH

EXTINGUISHING MEDIA:  
FOAM, ALCOHOL FOAM, CO<sub>2</sub>, DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES:  
USE FULL BUNKER GEAR INCLUDING A POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS. CONTAINERS MAY BURST UNDER INTENSE HEAT. IF WATER IS USED, VERY LARGE AMOUNTS ARE REQUIRED. REACTION BETWEEN WATER AND ISOCYANATE MAY BE VIGOROUS.

UNUSUAL FIRE AND EXPLOSION HAZARDS:  
NO UNUSUAL FIRE HAZARDS KNOW OTHER THEN REACTION TO WATER CAN BE VIGOROUS.

## SECTION 5: STABILITY AND REACTIVITY

STABILITY:  
STABLE

CONDITIONS TO AVOID (STABILITY):  
AVOID EXCESSIVE HEAT, OPEN FLAMES. DUE TO REACTION WITH WATER, A HAZARDOUS BUILDUP OF PRESSURE COULD RESULT.

INCOMPATIBILITY (MATERIAL TO AVOID):  
CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS AND STRONG LEWIS ACIDS OR MINERAL ACIDS, ALCOHOLS, BASES AND WATER.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:  
CO, CO<sub>2</sub>, NITROGEN OXIDES AND, HCN

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## HAZARDOUS POLYMERIZATION:

POLYMERIZATION MAY OCCUR AT ELEVATED TEMPERATURES IN THE PRESENCE OF ALKALIES, TERTIARY AMINES AND METAL COMPOUNDS.

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## SECTION 6: HAZARDS IDENTIFICATION

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### HMIS HAZARD CLASSIFICATION

HEALTH: 3      FLAMMABILITY: 1      REACTIVITY: 0      PERSONAL PROTECTIVE EQUIPMENT: G

### POTENTIAL HEALTH EFFECTS

#### EYES:

MAY CAUSE IRRITATION.

#### SKIN:

MAY CAUSE IRRITATION OR ALLERGIC SKIN RESPONSE. SKIN CONTACT MAY CAUSE SENSITIZATION.

#### INGESTION:

THIS MATERIAL HAS A PROBABLE LOW ACUTE ORAL TOXICITY.

#### INHALATION:

EXPOSURE MAY INCLUDE IRRITATION TO THE EYES, NOSE, THROAT AND LUNG, POSSIBLY COMBINED WITH DRYNESS OF THE THROAT OR CHEST AND DIFFICULTY IN BREATHING. SYMPTOMS MAY BE DELAYED. A REACTIVE RESPONSE TO MDI MAY DEVELOP IN SENSITIZED PERSONS.

#### HEALTH HAZARDS (ACUTE AND CHRONIC):

THERE ARE REPORTS THAT CHRONIC EXPOSURE MAY RESULT IN PERMANENT DECREASE IN LUNG FUNCTION. SINGLE OR REPEATED SKIN CONTACT OR INHALATION MAY CAUSE SENSITIZATION OR ALLERGIC REACTION. PERSONS WITH ASTHMATIC-TYPE CONDITIONS, CHRONIC BRONCHITIS, OTHER CHRONIC RESPIRATORY DISEASES OR RECURRENT SKIN ECZEMA OR SENSITIZATION SHOULD BE EXCLUDED FROM CONTACT TO MATERIALS OR WORKING WITH THIS PRODUCTS.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.

#### CARCINOGENICITY

OSHA: NO      NTP: NO      IARC: NO

#### ADDITIONAL CARCINOGENICITY INFORMATION:

NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

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## SECTION 7: FIRST AID MEASURES

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#### EYES:

FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES. GET IMMEDIATE MEDICAL ASSISTANCE.

#### SKIN:

SKIN CONTACT WILL NORMALLY CAUSE NO MORE THAN IRRITATION BUT WASH AFFECTED AREA WITH SOAP AND WATER AND REMOVE CONTAMINATED CLOTHING PROMPTLY.

#### INGESTION:

DO NOT INDUCE VOMITING. DILUTE BY GIVING WATER OR MILK TO DRINK IF VICTIM IS CONSCIOUS. GET MEDICAL ATTENTION IMMEDIATELY.

#### INHALATION:

REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY. OBTAIN MEDICAL ASSISTANCE. TREATMENT IS SYMPTOMATIC FOR PRIMARY IRRITATION OR BRONCHOSPASM.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

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## SECTION 8: RELEASE MEASURES

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### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

WEAR RESPIRATOR AND PROTECTIVE CLOTHING, SHUT OFF THE SOURCE AT THE LEAK. REMOVE EXCESS WITH VACUUM TRUCK AND TAKE UP THE REMAINDER WITH AN ABSORBENT SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS. FLUSH AREA WITH WATER TO REMOVE RESIDUE.

### SECTION 8 NOTES:

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## SECTION 9: WASTE DISPOSAL

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### WASTE DISPOSAL METHOD:

DISPOSE OF MATERIAL AS A HAZARDOUS WASTE ACCORDING TO FEDERAL, STATE, AND LOCAL REGULATIONS.

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## SECTION 10: HANDLING AND STORAGE

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### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORE IN A COOL DRY PLACE. SEAL ALL PARTIALLY USED CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS;

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THEREFORE, READ THE MSDS'S OF ALL THE COMPONENTS PRIOR TO USING MATERIAL. PROPERLY LABEL ALL CONTAINERS. STORE MATERIAL BETWEEN 60-100 F AND KEEP DRY.

**OTHER PRECAUTIONS:**

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS GENERATED FROM THE MATERIAL. OBSERVE CONDITIONS OF GOOD GENERAL HYGIENE AND SAFE WORKING PRACTICES. CONTAMINATED LEATHER ARTICLES CAN NOT BE CLEANED AND MUST BE DISCARDED IF CONTAMINATED WITH THIS PRODUCT. WASH ALL CONTAMINATED CLOTHING PRIOR TO THE REUSE THEREOF.

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## SECTION 11: EXPOSURE CONTROLS/PERSONAL PROTECTION

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**RESPIRATORY PROTECTION:**

USE A NIOSH APPROVED PRESSURE AIR-SUPPLIED RESPIRATOR AS REQUIRED TO PREVENT OVER-EXPOSURE TO VAPOR IN ACCORDANCE WITH 29 CFR 1910.134. CARTRIDGE TYPE RESPIRATORS ARE NOT APPROVED FOR PROTECTION AGAINST DIISOCYANATES.

**VENTILATION:**

GENERAL EXHAUST IS USUALLY SUFFICIENT TO CONTROL VAPORS AND EXPOSURE HAZARDS. HOWEVER, AREA SHOULD BE MONITORED TO PREVENT EXPOSURE BEYOND THE RECOMMENDED OSHA, ACGIH LIMITS.

**PROTECTIVE GLOVES:**

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

**EYE PROTECTION:**

SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:**

WEAR BODY COVERING CLOTHING AND OTHER COVERINGS AS NECESSARY SUCH AS APRON AND APPROPRIATE FOOTWEAR TO AVOID CONTACT WITH MATERIAL.

**WORK HYGIENIC PRACTICES:**

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

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