

MATERIAL SAFETY DATA SHEET

IN CASE OF EMERGENCY CALL: CHEMTREC 1-800-424-9300 CONTACT ONLY IN CASE OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT INVOLVING CHEMICALS.

PRODUCT NAME: **ECOPOXY CLEAR RESIN**

COMPANY NAME: ECOPOXY SYSTEMS / OCEANEARING RESEARCH AND DEVELOPMENT

26 Putnam Ave, Johnston, RI 02919 1-877-326-7699 www.ecopoxysystems.com

1. INGREDIENTS:

REACTION PRODUCTS OF EPICHLOROHYDRIN AND BISPHEINL A (CAS# 25085-99-8)
ALKYL GLYCIDYL ETHER (CAS# 68609-97-2)
SOYBEAN OIL

THIS DOCUMENT IS PREPARED PURSUANT TO THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) IN ADDITION, OTHER SUBSTANCES NOT HAZARDOUS PER THIS OSHA STANDARD MAY BE LISTED. WHERE PROPRIETARY INGREDIENT SHOWS, THE IDENTITY MAY BE MADE AVAILABLE AS PROVIDED IN THIS STANDARD.

2. PHYSICAL DATA

BOILING POINT:	NOT APPLICABLE
VAPOR PRESSURE:	NOT APPLICABLE
VAPOR DENSITY:	NOT APPLICABLE
SOL. IN WATER:	NONE
SP. GRAVITY:	1.08-1.10
APPEARANCE:	STRAW COLORED LIQUID
ODOR:	FAINT EPOXY ODOR

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 245°F	METHOD USED: PMCC
FLAMMABLE LIMITS:	LFL: NOT APPLICABLE UFL: NOT APPLICABLE
EXTINGUISHING MEDIA:	FOAM, CO ₂ , DRY CHEMICAL
FIRE & EXPLOSION HAZARDS:	NONE
FIRE-FIGHTING EQUIPMENT:	USE A POSITIVE PRESSURE, SELF-CONTAINED BREATHING APPARATUS.

4. REACTIVITY DATA

STABILITY: (CONDITIONS TO AVOID) EXCESS HEATING OVER LONG PERIODS OF TIME DEGRADES THE RESIN.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) BASE

UNCONTROLLED CONDITIONS: STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: THE BY-PRODUCTS EXPECTED IN INCOMPLETE PYROLYSIS OR COMBUSTION OF EPOXY RESINS ARE MAINLY PHENOLICS, CARBON MONOXIDE AND WATER. THE THERMAL DECOMPOSITION PRODUCTS OF EPOXY RESINS THEREFORE SHOULD BE TREATED AS POTENTIALLY HAZARDOUS SUBSTANCES, AND APPROPRIATE PRECAUTIONS SHOULD BE TAKEN.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR BY ITSELF BUT, MASSES MORE THAN 1 LB. OF PRODUCT PLUS ALIPHATIC AMINE WILL CAUSE IRREVERSIBLE POLYMERIZATION WITH CONSIDERABLE HEAT BUILD UP.

5. ENVIRONMENTAL AND DISPOSAL INFORMATION

ACTION TO TAKE FOR SPILL AND LEAKS: SOAK UP IN ABSORBENT MATERIAL AND COLLECT IN SUITABLE CONTAINERS. RESIDUAL MAY BE REMOVED USING STEAM OR HOT SOAPY WATER.

DISPOSAL METHOD: BURN IN ADEQUATE INCINERATOR OR BURY IN AN APPROVED LANDFILL; IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

6. HEALTH HAZARD DATA

EYES: MINOR TRANSIENT IRRITATION. NO CORNEAL INJURY LIKELY.

SKIN CONTACT: MAY CAUSE ALLERGIC SKIN REACTION IN SUSCEPTIBLE INDIVIDUALS. PROLONGED EXPOSURE NOT LIKELY TO CAUSE SIGNIFICANT SKIN IRRITATION. REPEATED EXPOSURE MAY CAUSE SKIN IRRITATION..

SKIN ABSORPTION: A SINGLE PROLONGED EXPOSURE MAY RESULT IN THE MATERIAL BEING ABSORBED IN HARMFUL AMOUNTS. THE LD₅₀ FOR SKIN ABSORPTION IN RABBITS IS 20,000 mg/kg

INGESTION:

THE ORAL LD₅₀ FOR SOYBEAN OIL IS 23g/kg ORAL (RAT). THE LC₅₀ FOR SOYBEAN OIL IS 240mg/L. NO HAZARDS ANTICIPATED FROM INGESTION INCIDENTAL TO INDUSTRIAL EXPOSURE.

INHALATION: VAPORS ARE UNLIKELY DUE TO PHYSICAL PROPERTIES. NOT A PROBLEM UNLESS HEATED TO A HIGH TEMPERATURE.

SYSTEMIC & OTHER EFFECTS: EXCEPT FOR SKIN SENSITIZATION, REPEATED EXPOSURES TO LOW MOLECULAR WEIGHT EPOXY RESINS OF THIS TYPE ARE NOT ANTICIPATED TO CAUSE ANY SIGNIFICANT ADVERSE EFFECTS. A POORLY CHARACTERIZED SAMPLE OF LOW MOLECULAR WEIGHT EPOXY RESIN OF THIS TYPE HAS BEEN REPORTED TO PRODUCE SKIN CANCER IN A HIGHLY SENSITIVE STRAIN OF MICE. HOWEVER, HIGH LEVELS OF IMPURITIES COMPROMISE THE VALIDITY OF THE FINDINGS. EPOXY RESIN THAT IS REPRESENTATIVE OF CURRENT MANUFACTURING PROCESSES IS NOT BELIEVED TO BE A CANCER HAZARD TO HUMANS. RESULTS OF MUTAGENICITY TESTS IN ANIMALS HAVE BEEN NEGATIVE. HAS BEEN SHOWN TO BE NEGATIVE IN SOME VITRO MUTAGENICITY TESTS AND POSITIVE IN OTHERS.

7. FIRST AID

EYES: IMMEDIATE AND CONTINUOUS IRRIGATION WITH FLOWING WATER FOR AT LEAST 15 MINUTES IS A GOOD SAFETY PRACTICE.

SKIN: CONTACT WILL PROBABLY CAUSE NO MORE THAN IRRITATION. WASH OFF IN FLOWING WATER OR SHOWER. WASH CLOTHING BEFORE REUSE.

INGESTION: LOW IN TOXICITY. NO ADVERSE EFFECTS ANTICIPATED BY THIS ROUTE OF EXPOSURE INCIDENTAL TO PROPER INDUSTRIAL HANDLING.

INHALATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR. CONSULT MEDICAL PERSONNEL.

NOTE TO PHYSICIAN: NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE. TREATMENT BASED ON JUDGEMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

8. HANDLING

EXPOSURE GUIDELINE(S): NONE ESTABLISHED.

VENTILATION: GOOD ROOM VENTILATION USUALLY ADEQUATE FOR MOST OPERATIONS.

RESPIRATORY PROTECTION: NONE NORMALLY NEEDED

SKIN PROTECTION: FOR BRIEF CONTACT, NO PRECAUTIONS OTHER THAN CLEAN BODY-COVERING CLOTHING SHOULD BE NEEDED. USE IMPERVIOUS GLOVES WHEN PROLONGED OR FREQUENTLY REPEATED CONTACT COULD OCCUR.

EYE PROTECTION: USE CHEMICAL GOGGLES.

9. ADDITIONAL INFORMATION**SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:**

PRACTICE GOOD CAUTION AND PERSONNEL CLEANLINESS TO AVOID SKIN AND EYE CONTACT.

AVOID BREATHING VAPORS OF HEATED MATERIAL.

10. NFPA HAZARD RATING

4=EXTREME 3=HIGH 2=MODERATE 1=SLIGHT 0=INSIGNIFICANT

HEALTH: 1

FIRE: 1

REACTIVITY: 0

SPECIFIC:

11. REGULATORY INFORMATION: STATUS ON SUBSTANCE LISTS

THE CONCENTRATIONS SHOWN IN THIS DOCUMENT ARE MAXIMUM OR CEILING LEVELS (WEIGHT %) TO BE USED FOR REGULATIONS. TRADE SECRETS ARE INDICATED BY "TS".

FEDERAL EPA**COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980****(CERCLA)**

REQUIRES NOTIFICATION OF THE NATIONAL RESPONSE CENTER OF RELEASE OF QUANTITIES OF HAZARDOUS SUBSTANCES EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITIES (RQ'S) IN 40 CFR 302.4. COMPONENTS PRESENT IN THIS PRODUCT AT LEVEL WHICH COULD REQUIRE UNDER THE STATUTE ARE:

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>% BY WEIGHT</u>	<u>RQ</u>
NONE			

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III

SECTIONS (301-304) REQUIRE EMERGENCY PLANNING BASED ON THRESHOLD PLANNING QUANTITIES (TPQS) AND RELEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQS) IN 40 CFR 355. COMPONENTS PRESENT IN THIS PRODUCT AT A LEVEL WHICH COULD REQUIRE REPORTING UNDER THIS STATUTE ARE:

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>% BY WEIGHT</u>
NONE		

SECTIONS (311-312) REQUIRE PRODUCTS BE REVIEWED AND APPLICABLE EPA HAZARD DEFINITIONS BE IDENTIFIED AND MADE KNOWN.

EPA HAZZARD CLASSIFICATIONS

ACUTE HAZARD	CHRONIC HAZARD	FIRE HAZARD	PRESSURE HAZARD	REACTIVE HAZARD
NO	NO	NO	NO	NO

SECTION (313) REQUIRES SUBMISSION OF ANNUAL REPORTS OF RELEASE OF TOXIC CHEMICALS THAT APPEAR IN 40 CFR 372 (FOR SARA 313). THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL. COMPONENTS PRESENT IN THIS PRODUCT AT LEVEL WHICH COULD REQUIRE REPORTING UNDER THE STATUE ARE:

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>% BY WEIGHT</u>
NONE		

IF YOU ARE UNSURE IF YOU MUST REPORT MORE INFORMATION, CALL THE EPA EMERGENCY PLANNING AND RIGHT-TO-KNOW HOT LINE: 1-800-535-0202 OR 1-202-479-2449.

TOXIC SUBSTANCES CONTROL ACT (TCSA)

THE COMPONENTS OF THIS PRODUCT ARE CONTAINED ON THE CHEMICAL SUBSTANCE INVENTORY LIST.

OTHER REGULATORY INFORMATION

D.O.T. SHIPPING NAME: NOT REGULATED BY D.O.T.

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH, BUT NO WARRANTY EXPRESSED OR IMPLIED IS MADE. MANUFACTURER URGES SUPPLIERS AND USERS OF THIS PRODUCT TO EVALUATE ITS SUITABILITY AND COMPLIANCE WITH LOCAL REGULATION.