

MATERIAL SAFETY DATA SHEET

24 HOUR EMERGENCY ASSISTANCE: CHEMTREC DOMESTIC 800-424-9300
24 HOUR EMERGENCY ASSISTANCE: CHEMTREC INTERNATIONAL 703-527-3887

MANUFACTURER'S NAME AND ADDRESS:

FASCO UNLIMITED OF HIALEAH, INC.
7735 W 20TH AVE.
HIALEAH, FL 33014-3227
305-821-9441

SECTION 1: PRODUCT NAME:

PRODUCT: EPOXO 88 PART 1 RESIN (REGULAR, CLEAR, SUPERFLEX, LIQUID, PASTE)

CHEM NAME: BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN

SECTION 2: INGREDIENTS

NO. COMPOSITION	CAS #	CONCENTRATION
Bisphenol A/Epichlorohydrin Based Epoxy Resin	20568-38-6	100% weight

SECTION 3: ACUTE TOXICITY DATA

<u>No. Acute Oral LD50</u>	<u>Acute Dermal LD50</u>	<u>Acute Inhalation LD50</u>
P 11.4 G/KG (RAT) AVAILABLE	> 20 ML/KG (RABBIT)	NO DATA

SECTION 4: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE AND ODOR:

Paste or Clear viscous liquid..

HEALTH HAZARDS:

Does not present an immediate health hazard during emergency incidents. Contact with hot material can cause thermal burns. May cause allergic skin reaction.

INHALATION:

This material does not normally present an inhalation hazard, however, in applications where vapors (caused by high temperature) or mists (caused by mixing) are created, breathing may cause a mild burning sensation in the nose, throat and lungs.

EYE CONTACT:

May cause temporary discomfort or irritation to the eye. Contact with hot material can cause thermal burns, which may result in permanent damage or blindness.

SKIN CONTACT:

May be slightly irritating to the skin. Repeated skin contact may result in an allergic skin reaction causing itching, burning, redness and swelling. Contact with hot material can cause thermal burns, which may result in permanent damage.

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INGESTION: Not expected to be relevant route of exposure.

SECTION 5: FIRST AID MEASURES

INHALATION:

Move to fresh air.

SKIN:

If contact with hot material, cool the burn area by flushing with large amounts of water. Wipe off excess material from exposed area. Flush exposed area with water and follow by washing with soap if available. **DO NOT** attempt to remove anything from the burn area or apply burn creams or ointments. Cover the burn area loosely with a sterile dressing. Transport to nearest medical facility for additional treatment.

EYES:

Cool the exposed area by flushing with large amounts of water. Flush eyes with water while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision or swelling persist, consult a physician. Transport to nearest medical facility for additional treatment.

INGESTION:

DO NOT INDUCE VOMITING. Have exposed person rinse mouth out with water, then drink sips of water to remove taste from mouth. In general, no treatment is necessary unless large quantities are swallowed, however, get medical advice. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

SECTION 6: FIRE FIGHTING MEASURES

FLASH POINT (METHOD): 480° F/248.89° C (Pensky-Martens Closed Cup)

EXTINGUISHING MEDIA:

Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

FIRE FIGHTING INSTRUCTIONS:

Material will not burn unless preheated. Clear fire area of all non-emergency personnel. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure. NIOSH approved, self-contained breathing apparatus. Cool surrounding equipment, fire exposed containers and structures with water. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons water per minute flame impingement exposure) to prevent weakening of container structure.

SECTION 7: ACCIDENTAL RELEASE MEASURES

May burn although not readily ignitable.

PROTECTIVE MEASURES:

Wear appropriate personal protective equipment when responding to spills. Refer to Section 8.

SPILL MANAGEMENT:

Use cautious judgment when cleaning up large spills. Shut off source of leak if safe to do so. Dike and contain spill. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. Flush area with water to remove trace residue. Contain run-off residue flush and dispose of properly. Place in container for proper disposal. Prevent entry into waterways, sewer, basements or confined areas. Remove contaminated soil to remove contaminated trace residues. Dispose of in same manner as material. For small spills: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

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Proper disposal should be evaluated based on regulatory status of this material (see Section 15) potential contamination from subsequent use and spillage, and regulations governing disposal in the local area.

REPORTING:

Notify authorities if any exposures to the general public or environment occur or are likely to occur.

SECTION 8: HANDLING AND STORAGE

Avoid prolonged or repeated contact with eyes, skin and clothing. Avoid contact with eyes, skin and clothing. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling.

HANDLING:

This resin may be handled, shipped and stored at elevated temperature in bulk. The recommended pumping temperature is 180°F.

Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reuse. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse. Keep containers closed when not in use. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

STORAGE:

Avoid contact with hot liquid to prevent thermal burns.

SECTION 9: EXPOSURE CONTROL/PERSONAL PROTECTION**EXPOSURE CONTROLS:**

No exposure controls are ordinarily required under normal conditions of use.

PERSONAL PROTECTION:**EYE PROTECTION:**

Chemical Goggles, if liquid contact is likely, or Safety Glasses.

SKIN PROTECTION:

Use protective clothing, which is chemical resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should take into account such factors and job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate protection is provided by:

Butyl, or EVAL-Laminate

RESPIRATORY PROTECTION:

No respiratory protection is ordinarily required under normal conditions of use.

SECTION 10: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR: Paste or Clear viscous liquid

SUBSTANCE CHEMICAL FAMILY: Epoxy Resin

Boiling Point	>500°F	Flash Point	480°F (Pensky-Martens Closed Cup)
Solubility (in water)	Negligible	Specific Gravity	1.17
Stability	Stable	Vapor Pressure	0.03 @ 77°C

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SECTION 11: REACTIVITY AND STABILITY**STABILITY:**

Material is stable under normal conditions.

CONDITIONS TO AVOID:

Avoid high temperatures.

MATERIALS TO AVOID:

Can react vigorously with strong oxidizing agents, strong Lewis or mineral acids, and strong mineral and organic bases. Avoid contact with water or liquids. Do not allow molten material to contact water or liquids as this can cause violent eruptions, splatter hot material, or ignite flammable material. Reaction with some curing agents may produce considerable heat and possible violent decomposition..

SECTION 12: TOXICOLOGICAL INFORMATION**ACUTE TOXICITY**

BADGE Resin	Dermal – LD50	>29ml/kg (Rabbit)
BADGE Resin	Oral – LD50	11.4 g/kg (Rat)

EYE IRRITATION:

Draize – 2 (Rabbit)

SKIN IRRITATION:

Draize – 1.6 (Rabbit)

MUTAGENICITY:

Resins of this type, liquid resins based on diglycidyl ether or bisphenol A, have proved to be inactive when tested by in vivo mutagenicity assays. These resins have shown activity in in-vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells. The significance of these tests to man is unknown.

CARCINOGENICITY:

Recent 2-year bioassays in rats and mice exposed by the dermal route to the diglycidyl ether or bisphenol A (BADGE) yielded no evidence of carcinogenicity to the skin or any other organs. This study clarifies prior equivocal results from a 2-year mouse skin painting study, which were suggestive, but not conclusive, for weak carcinogenic activity. Note: BADGE is a component in all BPA/ECH based liquid epoxy resins.

The International Agency for Research on Cancer (IARC) concluded that diglycidyl ether of bisphenol A is not classifiable as a carcinogen (IARC group 3), that is human and animal evidence of carcinogenicity is inadequate.

Chemical Name	NTP	IARC	ACGIH	OSHA
BADGE Resin		Group 3-Not Classifiable		

SECTION 13: ECOLOGICAL INFORMATION

GENERAL RECOMMENDATIONS:

If this material becomes a waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261). Place in an appropriate disposal facility in compliance with local regulators.

SECTION 14: DISPOSABLE CONSIDERATIONS

GENERAL RECOMMENDATIONS:

If this material becomes a waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261). Place in an appropriate disposal facility in compliance with local regulations.

SECTION 15: TRANSPORT INFORMATION

US DEPARTMENT OF TRANSPORTATION CLASSIFICATION

This material is not subject to DOT regulations under 49 CFR Parts 171-180.

SECTION 16: REGULATORY INFORMATION

FEDERAL REGULATORY STATUS

SUPERFUND AMENDMENT & REAUTHORIZATION ACT (SARA) TITLE III:

SARA Hazard Categories (311/312):

Delayed (Chronic) Health Hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS:

This material is listed on the EPA/TSCA Inventory of Chemical Substances

STATE REGULATION:

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):

Phenyl glycidyl ether (122-60-1) CA 65 C

CA 65 C = The chemical identified with this code is known to the State of California to cause cancer.

SECTION 17: OTHER INFORMATION

Revision Date: 11/29/99

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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7735 WEST 20TH AVENUE
HIALEAH, FL 33014-3227
305-821-9441

SECTION 1: PRODUCT NAME

PRODUCT: EPOXO 88 PART 2 HARDENER (REGULAR, CLEAR, SUPERFLEX, LIQUID, PASTE)

CHEMICAL NAME: MERCAPTAN – TERMINATED POLYMER

CASRN: TRADE SECRET

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL

CONCENTRATION (WT.%)

EXPOSURE LIMITS

This product does not contain any hazardous chemicals as defined by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

THIS PRODUCT DOES NOT CONTAIN COMPONENTS WHICH MAY CONTRIBUTE TO SIGNIFICANT IMMEDIATE HEALTH, PHYSICAL OR ENVIRONMENTAL HAZARDS.

White paste or clear white to yellow liquid with sulfur-like odor.

SKIN CONTACT:

MAY CAUSE SKIN IRRITATION ON PROLONGED OR REPEATED EXPOSURE.

EYE CONTACT:

MAY CAUSE SKIN IRRITATION ON PROLONGED OR REPEATED EXPOSURE.

INHALATION:

MAY BE HARMFUL IF INHALED IN LARGE AMOUNTS OR FOR PROLONGED PERIODS.

INGESTION:

MAY BE HARMFUL IF SWALLOWED.

CHRONIC EFFECTS:

NONE KNOWN TO FASCO:

OTHER HEALTH EFFECTS:

None known.

PRIMARY ROUTE OF EXPOSURE:

INHALATION, SKIN.

SECTION 4: FIRST AID MEASURES

SKIN CONTACT:

IN CASE OF EYE OR SKIN CONTACT, FLUSH THOROUGHLY WITH PLENTY OF WATER.

EYE CONTACT:

IN CASE OF EYE OR SKIN CONTACT, FLUSH THOROUGHLY WITH PLENTY OF WATER.

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INHALATION:

MOVE TO FRESH AIR. IF THERE ARE ADVERSE REACTIONS, CALL A PHYSICIAN.

INGESTION:

IF SWALLOWED, DO NOT INDUCE VOMITING, IMMEDIATELY DRINK A LARGE QUANTITY OF MILK OR WATER AND CALL A PHYSICIAN.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT:

495°F. (CLEVELAND OPEN CUP)

LOWER FLAMMABLE LIMIT:

NOT DETERMINED.

UPPER FLAMMABLE LIMIT:

NOT DETERMINED.

AUTOIGNITION TEMP:

NOT DETERMINED.

RECOMMENDED EXTINGUISHING MEDIA:

WATER SPRAY, CO₂, DRY CHEMICAL.

UNUSUAL FIRE OR EXPLOSION HAZARDS:

WATER MAY SPREAD FIRE (PRODUCT FLOATS ON WATER).

HAZARDOUS COMBUSTION PRODUCTS:

CARBON DIOXIDE, CARBON MONOXIDE, HYDROGEN SULFIDE, OXIDES OR SULFUR.

SPECIAL FIRE FIGHTING PROCEDURES:

COOL FIRE-EXPOSED CONTAINERS WITH WATER.

USE SELF-CONTAINED BREATHING APPARATUS IN CONFINED AREAS.

SECTION 6: ACCIDENTAL RELEASE MEASURES

STEPS TO TAKE IN CASE OF SPILL OR LEAK:

Add dry material to absorb spill (if large spill, dike to contain). Using recommended protective equipment, pick up bulk of spill and containerize for recovery or disposal. Flush area with water to remove residues.

SECTION 7: HANDLING AND STORAGE

DO NOT STORE NEAR EPOXY RESINS.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION:

CHEMICAL GOGGLES.

SKIN PROTECTION:

WORK CLOTHING (FULL-LENGTH SLEEVES).

RESPIRATORY PROTECTION:

RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE.

N/A WITH LOCAL EXHAUST.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:

LIQUID/PASTE.

APPEARANCE:

WHITE PASTE OR CLEAR WHITE TO YELLOW LIQUID.

ODOR:

SULPHUR-LIKE.

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ODOR THRESHOLD:

NOT DETERMINED.

PH 4.0@ 99.9%.

BOILING POINT:

NOT DETERMINED.

MELTING POINT:

Not determined.

SPECIFIC GRAVITY:

1.150

SOLUBILITY IN WATER:

SLIGHT (0.1 TO 1%)

PERCENT VOLATILES (BY WT.):

0.3 AT 70°F.

VAPOR DENSITY:

NOT DETERMINED.

VAPOR PRESSURE:

NOT DETERMINED.

EVAPORATION RATE (N-BUYTL ACETATE = 1):

NOT DETERMINED.

VOC CONTENT (EPA METHOD 24):

NOT DETERMINED.

SECTION 10: STABILITY AND REACTIVITY

STABILITY:

NORMALLY STABLE.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

INCOMPATIBLE MATERIALS:

OXIDIZERS.

CONDITIONS TO AVOID:

WATER MAY SPREAD FIRE (PRODUCT FLOATS ON WATER).

HAZARDOUS DECOMPOSITION PRODUCTS:

CARBON DIOXIDE, CARBON MONOXIDE, HYDROGEN SULFIDE, OXIDES OF SULFUR.

SECTION 11: TOXICOLOGICAL INFORMATION

TYPE OF STUDY	RESULTS	SPECIES
SKIN SENSITIZATION	NEG	GUINEA PIG
SKIN IRRITATION	1.2 (SCALE 0.8)	RABBIT
ORAL LD (50)	2.6 G/KG	RAT
EYE IRRITATION	16.8 (SCALE 0-110)	RABBIT
DERMAL LD (50)	>10.2 G/KG	RABBIT

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL TOXICITY:

NOT DETERMINED

ENVIRONMENTAL FATE:

NOT DETERMINED.

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSE OF PRODUCT IN AN APPROVED CHEMICAL WASTE LANDFILL OR INCINERATE IN

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ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATORS SINCE EMPTIED

CONTAINER RETAINS PRODUCT RESIDUES. ALL LABELED HAZARDS MUST BE OBSERVED.

SECTION 14: TRANSPORTATION INFORMATION

PROPER SHIPPING NAME:

NOT REGULATED FOR TRANSPORT.

UN/NA:

N/A

DOT HAZARD CLASS:

NONE.

PACKING GROUP:

NONE.

SECTION 15: REGULATORY INFORMATION

TSCA INVENTORY STATUS:

THIS PRODUCT AND/OR ALL OF ITS COMPONENTS ARE INCLUDED IN THE TSCA, INVENTORY OF CHEMICAL SUBSTANCES.

TSCA 12(B) COMPONENTS:

NONE.

SARA 311/312 HAZARD CATEGORIES:

NONE.

SARA 313 TOXIC CHEMICALS:

NONE.

SARA 302 EXTREMELY HAZARDOUS SUBSTANCES:

NONE.

CERCLA HAZARDOUS SUBSTANCES:

NONE.

CALIFORNIA PROPOSITION 65 COMPONENTS:

NONE.

SECTION 16: OTHER INFORMATION

HMIS RATINGS:

HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0

NFPA RATINGS:

HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0 OTHER: NONE

ABBREVIATIONS USED:

ND OR N/D = NOT DETERMINED

NA OR N/A = NOT APPLICABLE OR NOT AVAILABLE

NE OR N/E = NOT ESTABLISHED

N/AP = NOT APPLICABLE

ALL INFORMATION, RECOMMENDATIONS, AND SUGGESTIONS APPEARING HEREIN CONCERNING OUR PRODUCT ARE BASED UPON TESTS AND DATA BELIEVED TO BE RELIABLE. HOWEVER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE SAFETY, TOXICITY, AND SUITABILITY FOR YOUR OWN USE OF THE PRODUCT DESCRIBED HEREIN. SINCE THE ACTUAL USE BY OTHERS IS BEYOND OUR CONTROL, NO GUARANTEE, EXPRESS OR IMPLIED, IS MADE BY FASCO AS TO THE EFFECTS OF SUCH USE, THE RESULTS OBTAINED, OR THE SAFETY AND TOXICITY OF THE PRODUCT NOR DOES FASCO ASSUME ANY LIABILITY ARISING OUT OF USE BY OTHERS OF THE PRODUCT REFERRED HEREIN. THE INFORMATION HEREIN IS NOT TO BE CONSTRUED AS ABSOLUTELY COMPLETE SINCE ADDITIONAL INFORMATION MAY BE NECESSARY OR DESIRABLE WHEN PARTICULAR OR EXCEPTIONAL CONDITIONS OR CIRCUMSTANCES EXIST OR BECAUSE OF APPLICABLE LAWS OR GOVERNMENT REGULATIONS.