

MATERIAL SAFETY DATA SHEET

EDISON COATINGS, INC. 3 NORTHWEST DRIVE PLAINVILLE, CT 06062 (860)-747-2220	IN CASE OF EMERGENCY, CALL INFOTRAC at 1-800-535-5053	<u>HMIS RATINGS</u>	
		FIRE:	1
		HEALTH:	2
		REACTIVITY:	0
		PROTECTION:	

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME:	Flexi-Gard 500-S Part A	D.O.T. CATEGORY:	Not regulated.
PRODUCT CLASS:	Bisphenol A/Epichlorohydrin Epoxy	DATE OF PREPARATION:	3/21/00
PRODUCT TYPE:	Epoxy Resin	PREVIOUS REVISION:	1/1/89

SECTION 2 - HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>CONCENTRATION</u>	<u>CAS#</u>	<u>OSHA TLV</u>
BISPHENOL A/EPICHLOROHYDRIN	< 90%	25068-38-6	None Established
ALKYL (C12-13) GLYCIDYL ETHER	< 10%	120547-52-6	None Estbalished

SARA TITLE 3 SECTION 313:	Not Listed
SUSPECTED CARCINOGEN:	See Sections 5 and 10

SECTION 3 - PHYSICAL DATA

PHYSICAL STATE:	Light-yellow Liquid	VAPOR PRESSURE:	(mm hg) < 1
SPECIFIC GRAVITY:	1.1 (H ₂ O = 1)	VAPOR DENSITY:	(air=1) > 1
DENSITY:	9.2 lbs/gallon	WATER SOLUBILITY:	Slight
BOILING POINT:	N/A	EVAPORATION RATE (N-BUTYL ACETATE = 1): Slower	
MELTING POINT:	N/A		

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	> 200°F (setaflash)
FLAMMABILITY CLASSIFICATION:	D.O.T. Non-Flammable
EXTINGUISHING MEDIA:	Water fog, "Alcohol" foam, Dry chemical, Carbon Dioxide (CO ₂)
SPECIAL FIREFIGHTING PROCEDURES:	Material will not burn unless preheated. 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 fire-exposed containers with water.

SECTION 5 - HEALTH HAZARD DATA

<u>EFFECTS OF OVEREXPOSURE</u>	
ACUTE:	<p>Eye Contact: May be moderately irritating to the eyes.</p> <p>Skin Contact: Product may be moderately irritating to the skin; may cause sensitization. Prolonged or repeated liquid contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis.</p> <p>Inhalation: Not expected to be a relevant route of exposure due to low volatility. However, under conditions where exposure to mists or vapors is possible, may cause irritation to nose, throat, and respiratory tract.</p> <p>Ingestion: Not expected to be a relevant route of exposure; product is slightly toxic.</p>
CHRONIC:	<p>Recent 2-year bioassays in mice exposed by the dermal route to the diglycidyl ether of bisphenol A (DGEBA), or to other commercial resins which are composed predominantly of DGEBA have yielded very limited evidence of weak carcinogenicity. DGEBA is a component of this resin. The authors of this work concluded that the renal tumor evidence "was of no biological significance" and that the resin "is not a systemic carcinogen when applied to the dorsal skin of CF1 mice." Based upon this and all other available information, the Internal Agency for Research of Cancer (IARC) concluded (1988) that DGEBA was not classifiable as a carcinogen (IARC Group 3) based upon the following: Human evidence - inadequate; Animal evidence - inadequate.</p> <p>MUTAGENICITY: DGEBA, a component of this product, has proved to be inactive when tested by in vivo mutagenicity assays. It has shown activity by in vitro microbial mutagenicity screening and have both produced chromosomal aberrations in cultured rat liver cells. The significance of this information to man is unknown.</p> <p>NOTE: This product contains trace (2-3 ppm, typical) residual quantities of epichlorohydrin (ECH), CAS NO. 106-89-8. It is very unlikely that normal work practices with this product could result in measurable ECH concentrations in the workplace atmosphere. Nevertheless, you should be aware that ECH has been reported to produce cancer in laboratory animals and to produce mutagenic changes in bacteria and cultured human cells. It has been classified by IARC as a probable human cancer carcinogen (IARC Group 2A) based upon the following conclusions: Human evidence - inadequate; Animal evidence - sufficient. It has been classified as an anticipated human carcinogen by the National Toxicology Program (NTP).</p>

<u>EMERGENCY FIRST AID PROCEDURES:</u>	
EYES:	Flush eyes with plenty of water for 15 min. while holding eyelids open. Get medical attention.
SKIN:	Remove contaminated clothes/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse.
INHALATION:	Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.
INGESTION:	Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:	Pre-existing eye, skin, and respiratory disorders.
PRIMARY ROUTE(S) OF ENTRY:	Eye, Skin, Inhalation.

SECTION 6 - REACTIVITY DATA

STABILITY:	Stable. Hazardous polymerization will not occur.
INCOMPATIBILITY:	Avoid heat, flame and contact with strong oxidizing agents. Can react vigorously with strong Lewis or Mineral Acids and strong mineral and organic bases; especially primary and secondary aliphatic amines. Reaction with some curing agents may produce considerable heat.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon Monoxide, Aldehydes and Acids may be formed during combustion.

SECTION 7 - SPILL OR LEAKAGE PROCEDURES

IF MATERIAL IS SPILLED:	May burn although not readily ignitable. Use cautious judgement when cleaning up large spills. When dealing with large spills , wear respirator and protective clothing as appropriate. Shut off source of leak if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material; dispose of properly. Flush area with water to remove trace residue. When dealing with small spills , take up with an absorbent material and dispose of properly.
WASTE DISPOSAL METHOD:	Mix with stoichiometric quantities of curing agent and dispose as common waste.

SECTION 8 - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION:	Avoid breathing vapor or mists. If exposure may or does exceed occupational exposure limits, use a NIOSH-approved respirator to prevent overexposure. In accord with 29 CFR 1910.134, use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.
VENTILATION:	Use ventilation as required to control vapor concentrations.
HAND PROTECTION:	Wear chemical resistant gloves as required to minimize contact.
EYE PROTECTION:	Wear chemical goggles if there is a likelihood of contact with eyes.
OTHER PROTECTIVE EQUIPMENT:	Eye wash fountains and safety showers should be available for emergency use.

SECTION 9 - SPECIAL PRECAUTIONS

<p>Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures. Handle in accordance with the potential hazard of the curing agent used. WARNING. Containers, even those that have been emptied, can contain hazardous product residues. Minimize all contact with material. 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.</p> <p>Heating this resin above 300°F in the presence of air may cause low oxidative decomposition above 500°F, polymerization may occur. Some curing agents, e.g., aliphatic polyamines, can produce exothermic reactions which in large masses can cause runaway polymerization and charring of the reactants. Fumes and vapors from these thermal and chemical decompositions vary widely in composition and toxicity. Do not breath fumes. Use a NIOSH-approved respirator as required to prevent overexposure. In accord wit 20 CFR 1910.134, use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors. If this resin is handled, shipped, or stored in bulk.</p>

SECTION 10 - REGULATORY INFORMATION

The components of this product are listed on the EPATSCA Inventory of Chemical Substances.

Protection of stratospheric ozone (pursuant to section 611 of the Clean Air Act Amendments of 1990): Per 40 CFR PART 82, this

product does not contain nor was it directly manufactured with any Class I or Class II ozone-depleting substances. 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.

<u>STATE LISTED COMPONENT</u>	<u>PERCENT</u>	<u>STATE CODE</u>
Epichlorohydrin (CAS NO: 106-89-8)	2 ppm	MA, CA65C/R

CA = California Hazardous Substance List; CA65C, CA65R, CA65C/R = California safe drinking water and toxics Enforcement Act of 1986 or PROPOSITION 65 LIST; CT = Connecticut Toxic Substance List; FL = Florida Substance List; IL = Illinois Toxic Substance List; LA = Louisiana Hazardous substance list; MA = Massachusetts Substance List; ME = Maine Hazardous Substance List; MN = Minnesota Hazardous Substance List; NJ = New Jersey Hazardous Substance List; PA = Pennsylvania Hazardous Substance List; RI = Rhode Island Hazardous Substance List.

California PROPOSITION 65 FOOTNOTE: CA65C = The chemical identified with this code is known to the state of California to cause cancer. CA65R = The chemical identified with this code is known in the state of California to cause birth defects or other reproductive harm. CA65C/R = The chemical identified with this code is known to the state of California to cause both cancer and birth defects or other reproductive harm.