

## MATERIAL SAFETY DATA SHEET

Distributed by:

**INDUSTRIAL PROTECTIVE COATINGS, INC.**  
**1855 ENTERPRISE DRIVE, DEPERE, WI 54115 (920) 336-0801**  
**24 HOUR EMERGENCY ASSISTANCE: CHEMTREC 1-800-424-9300**

Acute Health 2	Fire 1	Reactivity 0	Hazard Rating: Least-0, Slight-1, Moderate-2, High-3, Extreme-4.
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For acute chronic health effects, refer to the discussion in Section III.

### SECTION I

Product: ANCHOR BOND SLURRY BROADCAST RESIN PART A  
 Chemical Name: Modified Bisphenol A/Epichlorohydrin Resin  
 Chemical Family: Epoxy Resin

### SECTION IIA PRODUCT/INGREDIENT

No.	Composition	CAS Number	Percent
P	Anchor Bond Resin	Mixture	100
1	Bisphenol A/Epichlorohydrin Resin	25068-39-6	70-90
2	Aliphatic Polyglycidyl Ether	120547-52-6	1-20

### SECTION IIB ACUTE TOXICITY DATA

No.	Acute Oral LD50	Acute Dermal LD50	Acute Inhalation LC50
P	Not available		
1	11.4 g/kg (Rat)	>20 ml/kg (Rabbit)	No deaths sat'd air 4 Hr
2	>10 g/kg (Rat)	>2.0 g/kg (Rat)	

### SECTION III HEALTH INFORMATION

The health effects noted below are consistent with requirements under the OSHA hazard communication standard (29 CFR 1910.1200).

EYE CONTACT: Based on presence of component #2, product is presumed to be irritating to the eyes.

SKIN CONTACT: Based on presence of components #1 and #2, product is presumed to be moderately irritating to the skin. Based on presence of components #1 and #2, product is presumed to cause skin sensitization. Prolonged or repeated liquid contact can result in defatting and drying of the skin which may result in skin and dermatitis.

INHALATION: Based on presence of component #2, product is presumed to cause irritation to the nose, throat, and respiratory tract.

INGESTION: Product is moderately toxic and maybe harmful is swallowed.

SIGNS AND SYMPTOMS: Irritation as noted above. Skin sensitization (allergy) may be evidenced by rashes especially hives.

**AGGRAVATED MEDICAL CONDITIONS:** Preexisting eye, skin, and respiratory disorders may be aggravated by exposure to this product. Preexisting skin or lung allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

**OTHER HEALTH EFFECTS:** None identified.

#### SECTION IV OCCUPATIONAL EXPOSURE LIMITS

No.	OSHA		ACGIH		OTHER
	PEL/TWA	PEL Ceiling	TLV/TWA	TLV/STEL	
P	None established				
1	None established				
2	None established				

#### SECTION V EMERGENCY AND FIRST AID PROCEDURES

**EYE CONTACT:** Flush eyes with plenty of water for 15 minutes while holding eyelids open. Get medical attention.

**SKIN CONTACT:** Remove contaminated clothing/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.

**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 give liquids if victim is unconscious or very drowsy. Otherwise, give no more than 2 glasses of water and induce vomiting by giving 30cc (2 tablespoons) syrup of ipecac. If ipecac is unavailable, give 2 glasses of water and induce vomiting by touching finger to back of victim's throat. Keep victim's head below hips while vomiting. Get medical attention.

**NOTE TO PHYSICIAN:** If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed endotracheal tube.

#### SECTION VI SUPPLEMENTAL HEALTH INFORMATION

**NOTE:** This product contains trace (<62 ppm, typical) residual quantities of epichlorohydrin (ECH), CAS No. 104-???. It is very unlikely that normal work practice with this product could result in atmospheric ECH concentrations approaching the OSHA limit. 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. The International Agency for Research on Cancer (IARC) states that the evidence that ECH causes cancer in humans is inadequate.

Component #1: Although the significance is unknown, component # 1 has been shown to be mutagenic in some microbial tests, but has failed to show mutagenicity in others. Chromosome aberrations were observed in cultured rat liver cells.

#### SECTION VII PHYSICAL DATA

<b>Boiling Point:</b> Not available (Deg. F)	<b>Specific Gravity:</b> 1.125 (H <sub>2</sub> O =1)	<b>Vapor Pressure:</b> <3 (n=Hg)
<b>Melting Point:</b> Not available (Deg. F)	<b>Solubility:</b> Slight (in water)	<b>Vapor Density:</b> >1 (air=1)
<b>Evaporation Rate:</b> Not available (n-Butyl Acetate=1)		

APPEARANCE AND ODOR: Light yellow liquid.

## **SECTION VIII FIRE AND EXPLOSION HAZARDS**

Flash point and method: >310°F (setaflash) lowest component	Flammable Limits Lower: N/AV	% volume in air Upper: N/AV
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EXTINGUISHING MEDIA: Use water fog, foam, dry chemical, or CO<sub>2</sub>.

**SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:** Material will not burn unless preheated. Do not enter confined fire space without full bunker (helmet with face shield, bunker coats, gloves, and rubber boots), including a positive pressure NIOSH-approved self-contained breathing apparatus. Cool fire-exposed contains with water.

UNUSUAL FIRE AND EXPLOSION HAZARDS: No unusual hazards.

## **SECTION IX REACTIVITY**

Stability: Stable

Hazardous Polymerization: Will not occur

CONDITIONS AND MATERIAL TO AVOID: Can react vigorously with strong oxidizing agents and strong levels of mineral acids. Reaction many curing agents give considerable heat release.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, aldehydes, and acids may be formed during combustion. Reacting curing agents give considerable heat release.

## **SECTION X EMPLOYEE PROTECTION**

RESPIRATORY PROTECTION: Avoid breathing vapor or mists. If exposure may or does exceed occupational exposure limits (see IV), 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.

PROTECTIVE CLOTHING: Avoid contact with eyes. Wear chemical goggles if there is likelihood of contact with eyes. Avoid prolonged or repeated contact with skin. Wear chemical-resistant gloves and other clothing as required to minimize contact.

ADDITIONAL PROTECTIVE MEASURES: Use ventilation as required to control vapor concentrations. Eye wash fountains and safety showers should be available for emergency use.

## **SECTION XI ENVIRONMENTAL PROTECTION**

SPILL OR LEAK PROCEDURES: May burn although not readily ignitable. Use cautious judgment when cleaning up large spills. 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 property. Flush area with water to remove trace residue. Small spills – Take up with an absorbent material and dispose of properly.

WASTE DISPOSAL: Place in an appropriate disposal facility in compliance with local regulations.

ENVIRONMENTAL HAZARDS: Keep out of surface waters, sewers, and waterways entering or leading to surface waters. Notify authorities if any exposure to the general public or environment occurs or is likely to occur.

**SECTION XII SPECIAL PRECAUTIONS**

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. Containers, even those that have been emptied, can contain hazardous product residues.

Warning, Potential sensitizer. Minimize all contact with material. Wash with soap and water before eating, drinking, smoking or using toilet facilities. Launder contaminated clothing before reuse. Contaminated leather articles, including shoes cannot be decontaminated and should be destroyed.

**SECTION XIII TRANSPORTATION REQUIREMENTS**

DEPARTMENT OF TRANSPORTATION CLASSIFICATION: Not hazardous by D.O.T. Regulations.  
D.O.T. PROPER SHIPPING NAME: Not Regulated.

**SECTION XIV OTHER REGULATORY CONTROLS**

The components of this product are listed on the EPA/TSCA inventory of chemical substances.

The information contained herein is based on the data available to us and is believed to be correct. However, Industrial Protective Coatings, Inc. makes no warranty, expressed or implied regarding the accuracy of these data or results to be obtained from the use thereof. Industrial Protective Coatings, Inc. assumes no responsibility for injury from use of the product described herein.

Date prepared: 3/18/98  
Revised date: 01/01/08

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Acute Health 3	Fire 1	Reactivity 0	Hazard Rating: Least-0, Slight-1, Moderate-2, High-3, Extreme-4.
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For acute chronic health effects, refer to the discussion in Section III.

### SECTION I

Product: ANCHOR BOND SLURRY BROADCAST HARDENER PART B  
 Chemical Name: Mixture  
 Chemical Family: Aliphatic Amine

### SECTION IIA PRODUCT/INGREDIENT

No.	Composition	CAS Number	Percent
P	Anchor Bond Flooring Hardener	Mixture	100
1	Diethylenetriamine (DETA)	111-40-0	>50
2	Bisphenol A	80-05-7	<50

### SECTION IIB ACUTE TOXICITY DATA

No.	Acute Oral LD50	Acute Dermal LD50	Acute Inhalation LC50
P	Not available		
1	2.33 g/kg (Rat)	1.09 ml/kg (Rabbit)	>300 ppm/8H (Rat)
2	4.2 g/kg (Rat)	3.0 g/kg (Rabbit)	Data Not Available

### SECTION III HEALTH INFORMATION

The health effects noted below are consistent with requirements under the OSHA hazard communication standard (29 CFR 1910.1200).

**EYE CONTACT:** Corrosive to the eyes and may cause severe damage including blindness. Vapors may be irritating.

**SKIN CONTACT:** Corrosive to the skin. May cause skin sensitization. May be toxic if absorbed.

**INHALATION:** Vapors/Mists may be corrosive to upper respiratory tract. Repeated exposure can result in lung damage. May be moderately toxic if inhaled. May cause central nervous system (CNS) depression.

**INGESTION:** Not expected to be a relevant route of exposure. However, corrosive and may cause severe and permanent damage to mouth, throat and stomach. May be moderately toxic if swallowed.

**SIGNS AND SYMPTOMS:** Irritation as noted above. Lung damage (Scarring, Bronchitis, Emphysema) may be evidenced by shortness of breath, especially on exertion, and may be accompanied by chronic cough. Skin sensitization (Allergy) may be evidenced by rashes, especially hives.

**AGGRAVATED MEDICAL CONDITIONS:** Preexisting eye, skin, and respiratory disorders may be aggravated by exposure to this product.

OTHER HEALTH EFFECTS: See Section VI for supplemental health information.

#### SECTION IV OCCUPATIONAL EXPOSURE LIMITS

	OSHA		ACGIH	OTHER	
No.	PEL/TWA	PEL Ceiling	TLV/TWA	TLV/STEL	
P	None established				
1	1 ppm		1 ppm (Skin)*		

\*The skin notation indicates the substance may be absorbed through the skin. Mucous membranes, or eyes, by direct or airborne exposure and suggests that appropriate measures be taken to prevent such absorption so that the exposure limit is not invalidated.

#### SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Rinse continuously with water while on way to get medical attention.

SKIN CONTACT: Immediately remove contaminated clothing or shoes, wipe excess from skin and flush with plenty of water for at least 15 minutes. Use soap and water. Do not reuse clothing until thoroughly decontaminated. Get medical attention immediately.

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. Give one glass of water unless victim is drowsy, convulsing, or unconscious. Seek medical attention immediately.

#### SECTION VI SUPPLEMENTAL HEALTH INFORMATION

Component 1: Although the significance is unknown, Diethylenetriamine (DETA) has been found to increase the frequency of sister chromatid exchange. It was also found to be positive in the unscheduled DNA mutagenicity assay. Microbial tests and in vitro gene mutation assays were negative. A lifetime skin painting study in mice did not result in carcinogenicity.

Histopathological effects of the kidney, liver, spleen and adrenals were observed in two rat lifetime feeding studies.

Component 2: In a reproductive study on rats, Bisphenol A (BPA) caused paternal toxicity reproductive kidney and liver effects and fetotoxicity at doses of 0.5% and 1.0% of the diet. No significant treatment related effects were seen at 0.25% of the diet. In other reproductive studies, BPA produced fetotoxicity in mice at maternally toxic doses, but not in rats.

A dust inhalation study in rats at doses up to 150 MG/M3 BPA for 6H/D for 9 exposures did not result in any significant treatment related systemic toxicity.

Bisphenol A at high oral doses and by intraperitoneal injection produced slight estrogenic effects (ovarian enlargement) in laboratory animals. The significance of this information in humans is unknown.

#### SECTION VII PHYSICAL DATA

<b>Boiling Point:</b> >404°F (207°C) (Deg. F)	<b>Specific Gravity:</b> 1.02 (H <sub>2</sub> O =1)	<b>Vapor Pressure:</b> <0.1 @ 20°C (MMHG))
<b>Melting Point:</b> Not available (Deg. F)	<b>Solubility:</b> Partially (in water)	<b>Vapor Density:</b> >1 (air=1)
<b>Evaporation Rate:</b> <1 of available (n-Butyl Acetate=1)		

APPEARANCE AND ODOR: Clear, Amber mobile liquid with amine odor.

## **SECTION VIII FIRE AND EXPLOSION HAZARDS**

Flash point and method: >200°F (>93°C) (SETAFLASH)	Flammable Limits Lower: 1.4	% volume in air Upper: N/AV
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EXTINGUISHING MEDIA: Use water fog, "alcohol" foam, dry chemical, or CO<sub>2</sub>. Water or fog may cause frothing which can be violent, especially if sprayed into containers of hot, burning liquid.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS: Material will not burn unless preheated. Do not enter confined fire space without full bunker (helmet with face shield, bunker coats, gloves, and rubber boots), including a positive pressure NIOSH-approved self-contained breathing apparatus. Cool fire-exposed contains with water.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Delayed lung damage (pulmonary edema) can be experienced after exposure to combustion products, sometimes hours after the exposure. Nitrogen oxides and nitrogen containing organic compounds may be released upon combustion. See Section XII.

## **SECTION IX REACTIVITY**

Stability: Stable

Hazardous Polymerization: Will not occur

CONDITIONS AND MATERIAL TO AVOID: Avoid heat, flame and contact with strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides, carbon monoxide and unidentified organic compounds may be formed during combustion..

## **SECTION X EMPLOYEE PROTECTION**

RESPIRATORY PROTECTION: Do not breath vapor or mists. If exposure may or does exceed occupational exposure limits (see IV), use a NIOSH-approved respirator to prevent overexposure. In accord with 29 CFR 1910.124 use either a full-face, atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

Avoid breathing vapors which may be produced under some conditions such as heating or applications of uncured material in large surface areas (e.g. Flooring and Painting). Avoid breathing aerosols and mists which may be formed by various methods of application.

PROTECTIVE CLOTHING: Do not get in eyes. Wear chemical goggles if there is potential contact with eyes. Do not get on skin, on clothing. Wear chemical-resistant protective clothing such as gloves. Outer clothing or apron, overshoes and a face-shield suitable to potential exposure.

ADDITIONAL PROTECTIVE MEASURES: Use ventilation as required to control vapor concentrations. Eye wash fountains and safety showers should be available for emergency use.

## **SECTION XI ENVIRONMENTAL PROTECTION**

### SPILL OR LEAK PROCEDURES:

Danger. Corrosive. Prevent all bodily contact with spilled material. Wear appropriate respirator and full-body protective clothing.

\*\*\*Large Spills\*\*\*Shut off leak only if safe to do so. Eliminate potential fire hazards. Dike and contain. Remove with vacuum truck or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking containers for proper disposal. Flush area with water to remove last traces of residue; dispose of flush solutions by absorption as above.

\*\*\*Small Spills\*\*\*Take up with an absorbent material and place in non-leaking containers; seal tightly for proper disposal.

## **SECTION XII SPECIAL PRECAUTIONS**

Store in a cool dry place with adequate ventilation. Keep away from open flames and high temperatures. Do not pressurize drum containers to empty them.

Heating this curing agent in the presence of air may cause thermal and oxidative decomposition with some epoxy resins. It may 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 breathe fumes. Use a NIOSH-Approved respirator as required to prevent over exposure. In accord with 29 CFR 1910.134. Use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

Danger!! Corrosive. Causes burns to eye, skin and respiratory tract. May be toxic if absorbed through skin. May cause skin sensitization. May cause CNS depression. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists.

Containers, even those that have been emptied, can contain hazardous product residues. 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.

## **SECTION XIII TRANSPORTATION REQUIREMENTS**

DEPARTMENT OF TRANSPORTATION CLASSIFICATION: Class 8 (Corrosive Material), III

D.O.T. PROPER SHIPPING NAME: Polyamines, Liquid, Corrosive, N.O.S. (Contains Diethylenetriamine)

Other requirements: UN2735, Guide 153

## **SECTION XIV OTHER REGULATORY CONTROLS**

The components of this product are listed on the EPA/TSCA 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.

In accordance with Sara Title III, Section 313, the attached environmental data sheet (EDS should always be copied and sent with MSDS).

## **SECTION XV STATE REGULATORY INFORMATION**

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.

STATE LISTED COMPONENT	PERCENT	STATE CODE
Diethylenetriamine (CAS NO. 111-40-0)	>50	CA, FL, IL, LA, MA, ME, MN, MO, PA, RI
Bisphenol A (CAS NO. 80-05-7)	<50	CA, MA, NJ, PA
Phenol (CAS NO. 108-95-2)	<0.01	MA, RI

CA = California, Haz. Subst. List; CA65C/R = California safe drinking water and toxics Enforcement Act of 1986 or proposition 65 List; FL = Florida subst. List; IL = Illinois Tox. Subst. List; LA = Louisiana Tox. Subst. List; MA = Massachusetts Tox. Subst. List; PA = Pennsylvania Tox. Subst. List; RI = Rhode Island Tox. Subst. List

**SECTION XVI****SPECIAL NOTES**

The information contained herein is based on the data available to us and is believed to be correct. However, Industrial Protective Coatings, Inc. makes no warranty, expressed or implied regarding the accuracy of these data or results to be obtained from the use thereof. Industrial Protective Coatings, Inc. assumes no responsibility for injury from use of the product described herein.

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