

24-Hour Emergency Phone: (800) 328-8501
 International Emergency Phone: (409) 727-0831
 Asia Pacific Emergency Phone: (65) 6336-6011

Effective Date: 5/31/07

Material Safety Data Sheet

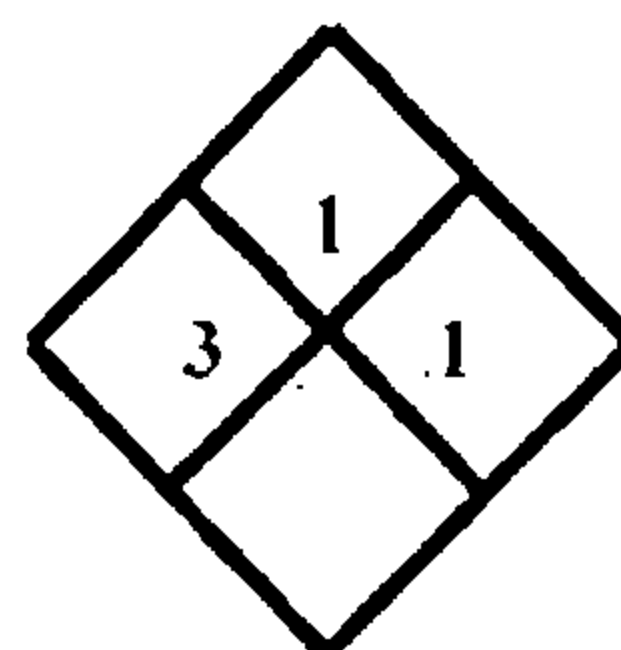
MSDS No: 2508

1. PRODUCT IDENTIFICATION

Trade Name: EPOCAST HARDENER 946

Material Code: FPC5000

Chemical Family: Modified Aliphatic Amines



NFPA RATING

2. COMPOSITION / INFORMATION ON INGREDIENTS

O S H A	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS				CARCINOGEN STATUS			
			ACGIH		OSHA		MFR.	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
	111-40-0	Bis-(2-aminoethyl)amine Common Name: Diethylenetriamine Concentration: 30.00 - 60.00 % by wt	1 ppm	NE	NE	NE	ACGIH (TWA) 1 ppm	NR	NR	NR
	141-43-5	ETHANOL, 2-AMINO- Common Name: Ethanolamine Concentration: 5.00 - 10.00 % by wt	3 ppm	6 ppm	3 ppm	6 ppm	TWA 3 ppm STEL 6 ppm	NR	NR	NR
*	80-05-7	Phenol, 4,4'-(1-methylethylidene)bis- Common Name: Bisphenol A Concentration: 30.00 - 60.00 % by wt	NE	NE	NE	NE	TLV 5 mg/m3	NR	NR	NR

NE = Not Established NR = Not Reviewed * = OSHA Hazardous Ingredient

3. HAZARDS IDENTIFICATION

Emergency Overview: CORROSIVE!! Causes severe eye and skin burns and possible allergic skin reaction. Vapor irritating to eyes, skin and nasal mucous membranes. Harmful if swallowed.

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Primary Route(s) of Entry: Dermal, inhalation.

Potential Health Effects: Vapor or mist can cause severe irritation to the nose and throat. Substance can be corrosive to eyes and causes permanent, irreversible eye injury. Substance can be corrosive to skin and cause chemical burns. Substance will cause burning and swelling of mouth, throat and abdomen on ingestion.

Carcinogenicity (NTP, IARC, OSHA): For Bisphenol A -

(Rat) Dietary administration of 1000 or 2000 ppm to rats for 103 weeks was found to cause a decrease in body weight. There were no significant compound related cancer or non-cancer pathologic changes.

(Mouse) Dietary administration of 1000, 5000 or 10,000 ppm to mice for 103 weeks was found to cause a decrease in body weight. There were no significant compound related cancer or non-cancer pathologic changes.

Chronic: Prolonged or repeated exposure can cause liver and kidney damage. Substance can cause allergic reaction.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

Inhalation: Remove to fresh air. Seek immediate medical attention.

Eyes: Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

Note to Physician: Allergic dermatitis or respiratory response in susceptible individuals may be delayed. It may appear after weeks or even months of frequent and prolonged contact.

Medical Conditions Aggravated by Exposure: Allergy, eczema, eye or respiratory conditions.

5. FIRE FIGHTING MEASURES

Flash Point: > 99°C (> 210 °F) determined

Flash Point Method Used: PMCC

Fire Fighting Extinguishing Media: Carbon dioxide, foam, dry chemical, water spray.

Fire Fighting Equipment: Cool exposed containers with water spray. Use self contained breathing apparatus.

Fire and Explosion Hazards: Do not use a solid stream of water. A solid stream of water can spread fire.

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Hazardous Combustion Products: Decomposition and combustion products may be toxic.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Evacuate the spill area. Wear full protective equipment. Dike and absorb spill with inert material (sand, earth, etc.). Transfer to containers suitable for disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Thoroughly launder clothing before reuse. Keep spills and runoffs out of municipal sewers and open bodies of water. If spilled on a porous surface, ground contamination must be considered.

7. HANDLING AND STORAGE

Signal Word: Corrosive.

Precautions: Do not get in eyes, on skin, or on clothing. Wear chemical splash goggles and impervious gloves when handling. Wash thoroughly after handling. Avoid breathing vapor or mist. Use only with adequate ventilation. Keep containers closed when not in use. Do not take internally.

Other Handling Information: In accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Avoid contact with eyes and prolonged or repeated skin contact. Do not inhale mists. Use with adequate ventilation. For industrial use only.

Storage Information: STORAGE TEMPERATURE: 35 deg C, maximum. Store indoors in a cool, dry area with adequate ventilation.

Additional Information: PLEASE READ TECHNICAL DATA SHEET BEFORE HANDLING THE PRODUCT. KEEP OUT OF THE REACH OF CHILDREN. FOR INDUSTRIAL USE ONLY.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal Protective Equipment: Eye bath and safety shower should be available. Wear protective clothing.

Exposure Guidelines: Wash thoroughly after handling and before eating, drinking, or using tobacco products.

Skin Protection: Wear impervious gloves.

Respiratory Protection: Wear respirator (MSHA/NIOSH or approved equivalent) suitable for concentrations and type of air contaminants encountered.

Eye Protection: Wear splash-proof chemical goggles.

Engineering Controls: Good general mechanical ventilation and local exhaust.

Emergency Response Protection: Wear breathing apparatus (MSHA/NIOSH-approved, pressure demand, self-contained or equivalent) and full protective gear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Liquid
Color:	Straw Colored
Odor:	Ammoniacal

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Solubility in Water:	Appreciable
Viscosity:	~ 400 cps
Vapor Pressure:	< 1 mm Hg at 20°C (68 °F)
Specific Gravity:	1.05
Boiling Point:	207°C (405 °F) (initial)
Vapor Density:	> 1 (Air = 1)
VOC:	4.5 % by weight based on SCAQMD-304-91 method
Coefficient of water/oil:	Not Evaluated

10. STABILITY AND REACTIVITY

Conditions to Avoid: Elevated temperatures.

Stability: Stable under normal conditions.

Incompatibility: Oxidizing agents, acids, aldehydes, ketones, epoxides, acrylates, and organic halides.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, and oxides of nitrogen.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral Effects (LD50): For Bis-(2-aminoethyl)amine:
>2330 mg/Kg (rats)

Acute Dermal Toxicity (LD50): For Bis-(2-aminoethyl)amine:
>1000 mg/Kg (rabbit)

Acute Skin Exposure Effects: Corrosive

Acute Eye Exposure Effects: Corrosive

Sensitization: Skin sensitizer.

Carcinogenicity: For Bisphenol A -

(Rat) Dietary administration of 1000 or 2000 ppm to rats for 103 weeks was found to cause a decrease in body weight. There were no significant compound related cancer or non-cancer pathologic changes.

(Mouse) Dietary administration of 1000, 5000 or 10,000 ppm to mice for 103 weeks was found to cause a decrease in body weight. There were no significant compound related cancer or non-cancer pathologic changes.

Skin Irritation: Corrosive. Causes burns.

Eye Irritation: Corrosive. Causes burns.

Reproduction: For Bisphenol A:

A recent study (October 2000) has shown that orally administered bisphenol A (BPA) in rats can cross the placental barrier. Peak concentrations were achieved in most tissues within approximately 20 minutes and were reduced by 95 to 98% within 6 hours.

A second study, "Three Generation Reproductive Toxicity Evaluation" in rats yielded the following no observed adverse effect levels (NOAELs):

adult systemic toxicity- 75 ppm or ~ 5mg/kg/day

reproductive toxicity - 750 ppm or ~ 50 mg/kg/day

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postnatal toxicity - 750 ppm or ~ 50 mg/kg/day

These results suggest that Bisphenol A crosses the placental barrier and that high doses (> 50 mg/kg/day at or near the maximum tolerated dose) may be a mild reproductive and/or postnatal toxicant.

Teratogenicity: For Bisphenol A:

(Mouse) Silastic skin implants containing up to 100 mg BPA did not cause any effects on fertility or reproduction of male and female mice when evaluated according to a continuous breeding protocol.

(Unspecified) Administration of BPA at levels of up to 1% in the diet caused embryo and fetotoxicity only at concentrations that also caused parental effects (0.5 and 1.0%). The NOEL was 0.25%.

Mutagenicity: For Bisphenol A: In vitro and in vivo assays have not shown evidence of mutagenicity.

Sub-Chronic: For Bisphenol A:

(Rat) Inhalation of up to 150 mg/m³ for 6 hours/day for 13 weeks was found to cause decreased body weight gain and irritation of upper airways. Reversible within 12 weeks after exposure ended.

(Rat, mouse) Rats and mice were fed diets containing up to 4000 or 25,000 ppm respectively. Effects seen include decreased weight gain, deaths, intestinal enlargement or liver changes. A NOEL was not found.

12. ECOLOGICAL INFORMATION

Biodegradability: No information available.

Ecotoxicity: No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate in approved equipment. Landfill or incinerate contaminated material in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

DOT: Non-Bulk

Proper Shipping Name:	Amines, liquid, corrosive, n.o.s.
Technical Shipping Name (If n.o.s.):	Diethylene triamine, ethanolamine
Hazard Class:	8
ID Number:	UN 2735
Packing Group:	PG II
Label:	Corrosive Liquid
Hazard Labels:	corrosive

TDG: Non-Bulk

Proper Shipping Name:	Amines, Liquid, Corrosive, n.o.s.
Technical Shipping Name (If n.o.s.):	Diethylene triamine, ethanolamine
Hazard Class:	8
ID Number:	UN 2735
Packing Group:	PG II
Label:	Corrosive
Hazard Labels:	corrosive

IATA: Non-Bulk

Proper Shipping Name:	Amines, liquid, corrosive, n.o.s.
Technical Shipping Name (If n.o.s.):	Diethylene triamine, ethanolamine

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Hazard Class:	8
ID Number:	UN 2735
Packing Group:	PG II
Label:	Corrosive Liquid
Hazard Labels:	corrosive
IMDG: Non-Bulk	
Proper Shipping Name:	Amines, Liquid, Corrosive, n.o.s.
Technical Shipping Name (If n.o.s.):	Diethylene triamine, ethanolamine
Hazard Class:	8
ID Number:	UN 2735
Packing Group:	PG II
Label:	Corrosive Liquid
Hazard Labels:	corrosive

15. REGULATORY INFORMATION**US Federal Regulations:**

Occupational Safety and Health Act (OSHA): This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

Resource Conservation and Recovery Act (RCRA): Not a hazardous waste under RCRA (40 CFR 261).

SARA Title III: Section 304 - CERCLA: Not listed.

SARA Title III: Section 311/312 - Hazard Communication Standard (HCS): Immediate (acute) health hazard

SARA Title III: Section 313 Toxic Chemical List (TCL): This product contains a toxic chemical(s) for routine annual toxic chemical release reporting under section 313 (40 CFR 372). This information must be included in all MSDS's copied or distributed for this material.

Chemical Name: Phenol, 4,4'-(1-methylethylidene)bis-

Common Name: Bisphenol A

Percent in Composition: 30 - 60 % by wt

Comment: POLYCYCLIC AROMATIC COMPOUNDS (PACS) (CERTAIN CHEMICALS ONLY)

TSCA Section 8(b) - Inventory Status: Chemical components listed on TSCA Inventory.

TSCA Section 12(b) - Export Notification: This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

International Regulations:

Australian Inventory Status: This product contains only chemicals which are currently listed on the Australian Inventory of Chemical Substances.

Canadian Inventory Status: This product contains only chemicals that are currently listed on the Canadian Domestic Substance List.

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Canadian WHMIS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. D2A, D2B, E

European Inventory Status (EINECS): This product contains only chemicals that are currently listed on the European Inventory of Existing Commercial Chemical Substances (EINECS).

Japanese Inventory Status: This product contains only chemicals currently listed on the Japanese Ministry of International Trade and Industry List of Existing and New Chemical Substances.

State Regulations:

California Proposition 65: This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

Pennsylvania Right-to-Know: The following is required composition information:

Chemical Name: Bis-(2-aminoethyl)amine
Common Name: Diethylenetriamine
CAS Number: 111-40-0

Chemical Name: Phenol, 4,4'-(1-methylethylidene)bis-
Common Name: Bisphenol A
CAS Number: 80-05-7
Comment: Environmental Hazardous Substance

Chemical Name: ETHANOL, 2-AMINO-
Common Name: Ethanolamine
CAS Number: 141-43-5
Comment: Hazardous Substance

16. OTHER INFORMATION

MSDS No:	2508
Reason Issued:	add WHMIS & syn 5/07 -Syn 11/06 update trans + h-Add syn 10/06 - up VOC & Synonym - fix label
Approved By:	Matthew Austin
Title:	EH&S Chemist
Approved Date:	01/22/98
Supersedes Date:	11/27/06

Other Information: L/M Codes: kl- BL0597 (B10022630) [B07]
Material Code: FPC5000

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