

EPOTEC YD 134 X 90

1. IDENTIFICATION OF SUBSTANCE**Trade Name:** EPOTEC YD 134X90**Manufacturer/Supplier:** Aditya Birla Chemicals (Epoxy Division) 16th Floor Mahathun Plaza Building, 888/160 -161 Pleonchit Road, Lumpini, Pathumwan, Bangkok 10330 Thailand. Tel: (662) 2535031-3, 2536882, Fax: (662) 2535030, Web site: www.thaiepoxy.com**For additional information:** Development Department, E-mail: epotec@thaiepoxy.com**2. COMPOSITIONS AND INFORMATION ON INGREDIENTS**

Component	CAS Number	%
Reaction product of Epichlorohydrin and Bisphenol A	025068-38-6	89 - 91
Xylene	001330-20-7	9 - 11

3. HAZARD IDENTIFICATION

Flammable. Harmful by inhalation and in contact with skin. Irritating to eyes and skin. May cause sensitization by skin contact.

4. FIRST AID**Eye:** Flush eyes with plenty of water.**Skin:** Wash off in flowing water or shower.**Ingestion:** Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel should administer oxygen. Call a physician or transport to a medical facility.**Note to Physician:** The decision of whether to induce vomiting or not should be made by an attending physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.**5. FIRE FIGHTING MEASURES**

Flammable Properties:	Flash point	27 - 32 °C* (closed cup)
	Auto ignition temperature	465 °C*
Flammability Limits:	LFL	1.7 %*
	UFL	7.6 %*

* Based on xylene only.

Hazardous Combustion Products: Under conditions of incomplete combustion or pyrolysis, phenolics and carbon dioxide may be evolved. The thermal decomposition products therefore should be treated as potentially hazardous substances and appropriate precautions should be taken.**Extinguishing Media:** Carbon dioxide, dry chemical, fire extinguishers, form.**Specific Methods for Fire Fighting:** Solvents may produce excessive pressure under fire-conditions. Sealed containers may rupture and ignites. Cool containers in the vicinity of the blaze using a water spray.**Specific Fire or Explosion Hazards:** Flammable product.**Protective Equipments for Fire Fighting:** Wear positive-pressure self-contained breathing apparatus and protective fire fighting clothing. (includes fire fighting helmet, coat, trousers, boots and gloves)

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Evacuate unprotected personnel upwind of spill. Wear adequate personal protective equipment. Treat as a flammable liquid, keep heat, flame or spark producing equipment away. Vapours are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flashback may occur.

Environment Precautions: Contain liquid to prevent contamination of soil, surface water or ground water. Flushings and wash waters must be contained and prevented from entering into soil, waterways and ground water.

Method of Cleaning Up: Cover and soak up with a suitable absorbent material, such as: sand. Collect in suitable and properly labeled containers. Dispose of according to applicable regulations. Residual can be removed with solvent. Solvents are not recommended for cleanup unless the recommended exposure guidelines and safe handling practices for the specific solvent are followed. Consult appropriate solvent SDS for handling information and exposure guidelines. Residual product may be removed using steam or hot spray water.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operation on or near empty containers. Use of non-sparking or explosion proof equipment may be necessary, depending upon the type of operation. No smoking, open flames or sources pressure for transferring product. Electrically ground all equipment.

Storage: Ground and bond all equipment. Store containers tightly closed in a well-ventilated area. Do not expose to direct sunshine.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Guideline(s): For xylene
ACGIH TLV = 100 ppm TW - 8 hours
STEL = 150 ppm, A4

Engineering Controls: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Eye Protection: Use chemical goggles. If vapor exposure causes eye discomfort, use a full-face respirator.

Skin Protection: Use gloves impervious to this material when prolonged or frequently repeated contact could occur.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light yellowish liquid
Odor: Xylene
Boiling Point: 138 - 144 °C*
Vapor Pressure: 5.3 mmHg at 20 °C*
Vapor Density: 3.7* (air = 1)
Solubility in Water: None
Specific Gravity: 1.09 at 25 °C

* Based on xylene only.

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions. (See section 7)

Conditions to Avoid: Solvents may cause high pressure under excessive heat. This may lead to pressure build up in closed containers. Avoid ignition sources such as flames or spark producing equipment.

Material to Avoid: Acids, bases, amines and oxidizing agents.

Hazardous Decomposition Products: Refer to section 5 for Hazardous Combustion Products.

Hazardous Polymerization: Will not occur by itself. Masses of more than one pound (0.5 kg) of product plus aliphatic amines will cause irreversible polymerization with considerable heat build up.

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity (LD50/Rat): > 2,000 mg/kg
Acute Dermal Toxicity (LD50/Rabbit): Not determined

12. ECOLOGICAL INFORMATION

Degradation: Resin: Biodegradation under aerobic laboratory condition is below detectable limits.
 Xylene: Biodegradation reached in Closed Bottle Test after 20 days = 70%.

Ecotoxicity: Xylene: Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in most sensitive species.)

13. DISPOSAL CONSIDERATIONS

Disposal: The recommended procedure for disposing of waste products is burning under carefully controlled conditions. Burn in an adequate incinerator or bury in an approved landfill in compliance with applicable regulations. Do not pump into any sewers, on the ground, or into any body of water.

14. TRANSPORT INFORMATION

Road, Rail & Barge

Proper shipping name: 1866 RESIN SOLUTION, FLAMMABLE

Truck	-	ADR Loaded:	3-31c	Empty:	3-71	Label	I: 3
Rail	-	RID Loaded:	3-31c	Empty:	3-71	Label	I: 3
				Filling % Packed:			95
				Filling % Bulk:			95
Kemler Code:			30	UN Number:			1866
Tremcard Nr. CFFIC:			677B				
Tremcard Nr. Other:							
Barge	-	ADNR Loaded:	3-31c	Empty:	3-71	Label:	3
		Ship Type:	-	CATG.:			

Sea

Proper shipping name: RESIN SOLUTION, FLAMMABLE

Sea	-	IMO/IMDG Class:	3.3	UN Nr:	1866	Label:	3
Packing Group:			III	EMS:	3-05	MFAG:	310
Container Type:			2	Marine Pollutant:			N (Y/N)
Test Pressure (bar):			1.5	Filling % Packed:			95
				Filling % Bulk:			95
				Filling Kg/L (Gas):			

Air

Proper shipping name: RESIN SOLUTION, FLAMMABLE

Air-ICAO/IATA Class:			3	UN Nr:	1866	Label:	FL
Sub Class:			-				
Packing Group:			III	Pack Instr. Passenger:			309
				Pack Instr. Cargo:			310

Remarks: Sample shipment not allowed by mail.

15. REGULATORY INFORMATION

Notice: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial and local laws.

MATERIAL SAFETY DATA SHEET

The following specific information is made for the purpose of complying with numerous federal, state or provincial and local laws and regulations.

Classification according to Directive 1999/45/EC (the Dangerous Preparations Directive)

Hazard Symbol:	Xn	Irritant
Risk Phrases:	R10	Flammable
	R20/21	Harmful by inhalation and in contact with skin.
	R36/38	Irritating to eyes and skin.
Safety Phrases:	S16	Keep away from sources of ignition - NO SMOKING.
	S25	Avoid contact with eyes.
	S28	After contact with skin, wash immediately with plenty of water and soap.
	S36/37/39	Wear suitable gloves and eye/face protection.
Chemical Name:	Reaction product: Bisphenol A - (epichlorohydrin); epoxy resin (number average molecular weight <= 700) Xylene	

16. OTHER INFORMATION

The information presented herein is based on data considered to be accurate as of date of preparation of the Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.