

EPOTEC YDH 184

1. IDENTIFICATION OF SUBSTANCE

Trade Name: EPOTEC YDH 184

Manufacturer/Supplier: Aditya Birla Chemicals (Epoxy Division) 16th Floor Mahathun Plaza Building, 888/160 - 161 Pleonchit Road, Lumpini, Pathumwan, Bangkok 10330 Thailand.
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2. COMPOSITIONS AND INFORMATION ON INGREDIENTS

| Component | CAS Number | % |
|--|------------|-----|
| 1,2-Cyclohexanedicarboxylic acid, diglycidyl ester | 5493-45-8 | 100 |

3. HAZARD IDENTIFICATION

This compound may cause skin and eye irritation, sensitization and dermatitis.

4. FIRST AID

Eye: First check the victim for contact lenses and remove if present. Flush victim's eyes with water of normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils. Or medication in the victim's eyes without specific instructions from a physician. Immediately transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.

Skin: Immediately flush affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, immediately call a physician and be prepared to transport the victim to a hospital for treatment.

Ingestion: Do not induce vomiting. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and immediately call a hospital or poison control center. Be prepared to transport the victim to a hospital if advised by a physician. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. Do not induce vomiting. Immediately transport the victim to a hospital.

Inhalation: Immediately leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, self-contained breathing apparatus (SCBA) should be used, if not available, use a level of protection greater than or equal to that advised under respirator recommendation.

5. FIRE FIGHTING MEASURES

Flammable Properties: Flash point 374 °F
Auto ignition temperature Not applicable

Flammability Limits: LFL Not applicable
UFL Not applicable

Hazardous Combustion Products: Under fire conditions polymers decompose. The smoke may contain polymer fragments of varying compositions in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to phenolics, carbon monoxide and carbon dioxide.

Other Flammability Information: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is emitted when burned without sufficient oxygen.

Extinguishing Media: Dry chemical, carbon dioxide, halon extinguisher, and water spray.

Fire Fighting Instructions: Keep people away. Isolate fire area and deny unnecessary entry. Do not use direct water stream. May spread fire. Use water spray to cool fire exposed containers and fire-affected zone until fire is out and danger of re-ignition has passed. Move container from fire area if this is possible without hazard. Fight fire from protected location or safe distance. Consider use of unmanned hose holder or monitor nozzles. Immediately withdraw all personnel from area in case of rising sound from venting safety device or discoloration of the container. Flushing with water to protect personnel and minimize property damage may move burning liquids. Water fog, applied gently may be used as a blanket for fire extinguishments. Contain firewater run-off if possible. Firewater run-off, if not contained may cause environmental damage.

Protective Equipments for Fire Fighting: Wear positive pressure self-contained breathing apparatus (SCBA) and full protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Protect People: Isolate area. Clear non-emergency personnel from area.

Protect the Environment: Keep out of irrigation ditches, sewers and water supplies.

Cleanup: If you spill this chemical, first remove all sources of ignition. Then use absorbent paper to pick up all liquid spill material. Your contaminated clothing and absorbent paper should be sealed in a vapor-tight plastic bag for eventual disposal. Solvent wash all contaminated surfaces with ethanol followed by washing with a soap and water solution. Do not reenter the contaminated area until the safety officer (or other responsible person) has verified that the area has been properly cleaned.

7. HANDLING AND STORAGE

Handling: Where the neat test chemical is weighed and diluted, wear a NIOSH-approved half face respirator equipped with an organic vapor/acid gas cartridge (specific for organic vapor, HCl, acid gas and SO₂) with a dust/mist filter.

Storage: You should store this material in original container in cool and dry place. Store away from sources of ignition.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Guideline(s): None established.

Engineering Controls: Good general ventilation should be sufficient for most conditions.

Eye Protection: Use safety glasses.

Skin Protection: Use protective clothing impervious to this material. Selection of specific items such as face shields, gloves, boots, apron, or full-body suit will depend on operation. Remove contaminated clothing immediately, wash skin with soap and water, and launder clothing before reuse.

Respiratory Protection: Where the neat test chemical is weighed and diluted, wear a NIOSH-approved half face respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

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|-----------------------------|-----------------------------|
| Appearance: | Light yellowish liquid |
| Odor: | Mild epoxy |
| Boiling Point: | > 200 °C |
| Vapor Pressure: | 7.50 x 10E-7 mm Hg at 25 °C |
| Vapor Density: | Not applicable |
| Solubility in Water: | < 1 mg/mL at 25 °C |
| Density: | 1.16 g/cc at 25 °C |

10. STABILITY AND REACTIVITY

Stability: Stable at ambient temperature.

Conditions to Avoid: Excess heating over long periods of time degrades the resin.

Material to Avoid: Acids, bases, strong oxidize agents.

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

Hazardous Polymerization: Will not occur by itself. Polymerization can be catalyzed by aliphatic amines. Masses of more than one pound (0.5 kg) of product plus an aliphatic amine 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): > 4,000 mg/kg

12. ECOLOGICAL INFORMATION

Degradation: No relevant information found.
Ecotoxicity: No relevant information found.

13. DISPOSAL CONSIDERATIONS

Disposal: Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all applicable federal, state/provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

14. TRANSPORT INFORMATION

Proper Shipping Name (IATA): Not restricted.
U.S. Department of Transportation: For DOT regulatory information, if required, consults transportation regulations.
Canadian TDG Information: For TDG regulatory information, if required, consults transportation regulations.
Special Provisions: Use: Anti-arteriosclerosis properties, insect attractant activity.

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

U.S. Regulations

SARA Hazard Category: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Section 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: An Acute health hazard

This product has been classified as "an immediate health hazard" due to the potential for allergic skin reaction.

Canadian Regulations

WHMIS Information: The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is: D2B - Skin sensitizer

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.