

SAFETY DATA SHEET

1. IDENTIFICATION THE SUBSTANCE / PREPARATION OF THE COMPANY / UNDERTAKING

Product Name: **ESTOTECT E250 Part B (Hardener)**
Application: Hardener component of two part epoxy based coating
Company: Denka Construction Solutions Malaysia Sdn Bhd
Address: No. 18, Jalan Utas 15/7, Seksyen 15, 40200 Shah Alam, Selangor, Malaysia
Telephone: 03 – 55108810 Fax: 03 – 55100708

2. HAZARD IDENTIFICATION

A. Hazard Risk Classification

- Health Hazard
 - Flammable Liquids : Category 3
 - Acute Toxicity (dermal) : Category 4
 - Acute Toxicity (inhalation) : Category 4
 - Skin Corrosion / Irritation : Category 2
 - Serious Eye Damage / Eye Irritation : Category 2
 - Skin sensitization : Category 1
 - Specific target organ systemic toxicity
Single exposure : Category 3
 - Hazardous to aquatic environment -
chronic hazard : Category 2

B. Label elements including precaution statements.

- Symbol:



- Signal word: Danger

- Hazard Risk Statement

H312 Harmful if in contact with skin
H315 Cause skin irritation.
H317 May cause allergic skin reaction
H319 Causes serious eye irritation.
H332 Harmful if inhaled
H335 May causes respiratory irritation
H411 Toxic to aquatic life with long lasting effects

- Precautionary Statement (Prevention)

P233 Keep container tightly closed
P242 Use only non-sparking tools
P261 Avoid breathing dust/fume/gas/mist/vapours/spray
P264 Wash hand thoroughly after handling

- P270 Do not eat, drink, or smoke when using this product.
 P271 Use only outdoors or in a well ventilated area
 P272 Contaminated work clothing shall not be allowed out of the workplace
 P273 Avoid release to environment
 P280 Wear protective gloves, clothing, eye and face protection from competent authority.
 P312 Call a POISON CENTRE or doctor/physician if you feel unwell.
 P322 Specific measures: Refer to First aid instruction.
 P363 Wash contaminated clothing before reuse.
 P391 Collect Spillage
 P302 + P352 If on skin: Wash with plenty of soap and water
 P304 + P340 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P333 + P313 If skin irritation or rash occurs: Get medical advice / attention.
 P370 + P378 In case of fire, use fire extinguishing media as in section 5 for extinction.
 P301 + P330 + P331 If swallowed, rinse mouth, do not induce vomiting
 P301 + P312 + P330 If swallowed: Rinse mouth. Call a POISON CENTRE or doctor/physician.
 P332 + P313 + P362 If skin irritation occurs: Take off contaminated clothing and wash before reuse. Get medical advice / attention.
 P303 + P361 + P353 If on skin (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water / shower.
 P305 + P351 + P338 If in eyes: remove contact lenses, if present and easy to do, rinse cautiously with water for several minutes.
 P337 + P313 If eye irritation persists: Get medical advice / attention
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P403 + P235 Store in a well-ventilated place. Keep cool.
 P405 Store lock up
 P501 Dispose of content / container in accordance to local / national regulation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS Number	%
Diamines	25513 – 64 – 8	10 ~ 30
3,5,5- Trimethylcyclohexylamine	15901 – 42 – 5	30 ~ 60
Alkyl Glycidyl Ethers	68609 – 96 – 1	5 ~ 10

4. FIRST AID MEASURES

- Eyes: Flush eyes with large amount of water for 10 minutes or until irritation subsides. If irritation persists, get medical attention.
 Skin: Remove contaminated clothing, immediately flush with large amounts of water and use soap, if available. Get medical attention, if symptom or pain persists.
 Inhalation: Remove victim to fresh air. Administer artificial respiration if breathing stopped. Keep at rest, seek prompt medical attention.
 Ingestion: If swallowed, do not induce vomiting. Keep at rest. Seek prompt medical attention.

5. FIRE FIGHTING MEASURES

Fire Extinguishing Media	: Alcohol – resistance foam. Carbon Dioxide CO ₂ , dry sand, limestone powder.
Special Hazard	: May explode when heated or exposed to flames or sparks. Combustion may produce hazardous decomposition products, like ammonia gas and nitrogen oxide gases. Use of water may result in formation of toxic aqueous solutions. Do not allow run-off from fire-fighting into drains and water courses.
Special Protective Equipment	: Self-contained breathing apparatus is recommended. Avoid contact with skin.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Eliminate source of ignition. Ensure adequate ventilation or use respiratory protection. Prevent skin and eye contact.
Environmental Precautions	Prevent entry to drains, sewers or water courses.
Cleaning	Contain spillage with sand, earth or approved absorbent. Place in suitable container, using spark proof equipment and dispose in accordance with local regulations.

7. HANDLING AND STORAGE

Handling	Ensure storage vessels and transfer equipment are earthed. Naked flames and other sources of ignition must not be present. Handle in well ventilated areas.
Storage	Suitable materials for storage are mild steel, stainless steel and aluminium containers. Plastic and rubber are not recommended, although some polyolefins can be used for small quantities. Drums should be stored at ambient temperature. Keep away from oxidizers.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Personal Protection:

Eye Protection	: Wear goggles or safety glasses with side protection.
Respiratory Protection	: Normal working conditions should have adequate ventilation and vapour extraction. If excess vapour, use suitable fresh air respiratory equipment.
Hand Protection	: Wear PVC, nitrile or polyurethane gloves.
Skin Protection	: Wear suitable protective clothing. Remove contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Viscous Liquid
Colour	Brownish
Odour	Low
pH (concentration)	Not applicable
Boiling Range (°C)	Not Available
Flash Point (°C)	> 120
% Volatiles (By Wt.)	< 5.0
Water Solubility	Not soluble

10. STABILITY AND REACTIVITY

Condition to avoid	Exposure to high temperature or flames.
Material to avoid	Strong oxidising agents, peroxides
Hazardous decomposition	Nitrogen Oxides, Chlorine, ammonia, carbon dioxide, carbon monoxide and other noxious fumes.
Chemical stability	The product is stable.

11. TOXICOLOGICAL INFORMATION

Inhalation	High vapour concentration are irritating to the eyes and respiratory tract, may cause headache, dizziness, nausea, vertigo and unconsciousness and may have other central nervous effects.
Skin Contact	Frequent or prolonged contact may irritate and cause dermatitis. May be absorbed with possible systematic effect.
Eye Contact	Irritating.
Ingestion	Small amounts of liquid aspirated into the respiratory system during ingestion or vomiting may cause broncho pneumonia or pulmonary edema. Low toxicity.

12. ECOLOGICAL INFORMATION

Mobility	: Viscous Liquid
Biodegradability	: Not Available
Aquatic Toxicity	: Not Available

13. DISPOSAL CONSIDERATIONS

Liquid surplus or waste should be appropriately labelled. Disposal must be in accordance with current national and local regulations. Appropriate disposal is by incineration. Solidified wastes may be land filled, but authorization from appropriate sources should be sought. Empty drums should be sent for reconditioning or scrap by a recognised drum reconditioner. Empty containers may pose a fire and explosion hazard.

14. TRANSPORT INFORMATION

Shipping name:	Polyamine, Liquid, Corrosive, N.O.S (Contains ISOPHORONEDIAMINE)		
UN No	2735		
ICAO/IATA Class	8	IMDG Class	8
ICAO/IATA Packing Group	III	IMDG Packing Group	III

15. REGULATORY INFORMATION

Follow the local regulations

16. OTHER INFORMATION

The data and advice given apply when the product is used for the stated application or applications. The product is not sold as suitable for any other application. Use of the product for applications other than as stated in this sheet may give rise to risks not mentioned in this sheet. The product should not be used than for the stated application or applications without seeking advice from Denka Construction Solutions Malaysia Sdn Bhd.

If this product has been purchased to a third party for use at work, it is the purchaser's duty to take all necessary steps to secure that any person handling or using the product is provided with information in this sheet.

It is the responsibility and duty of the employer to inform employees and others who may be affected of any hazards described to this sheet and of any precautions which should be taken. This sheet does not constitute or substitute for the user's own assessment of workplace risk, as required by other health and safety legislation.

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