

SAFETY DATA SHEET

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

Product Name: **ESTOTECT EN600 Part B (Hardener)**
Application: Hardener component of two part epoxy coating
Company: Denka Construction Solutions Malaysia Sdn Bhd
Address: No. 18, Jalan Utas 15/7, Seksyen 15, 40200 Shah Alam, Selangor, Malaysia
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2. HAZARD IDENTIFICATION

A. Hazard Risk Classification

- Health Hazard
Acute toxicity (oral): Category 4
Skin Corrosion / Irritation: Category 2
Serious Eye Damage / Eye Irritation: Category 2
Respiratory sensitization: Category 1
Skin sensitization: Category 1

B. Label elements including precaution statements.

- Symbol:



- Signal word: Warning
- Hazard Risk Statement
H302 Harmful in swallowed
H315 Cause skin irritation.
H317 May cause allergic skin reaction
H319 Causes serious eye irritation.
H317 May cause allergic skin reaction
H334 May cause allergic or asthma symptoms or breathing difficulties if inhaled
- Precautionary Statement (Prevention)
P261 Avoid breathing dust/fume/gas/mist/vapour spray
P264 Wash hand thoroughly after handling.
P272 Contaminated work clothing shall not be allowed out of the workplace
P280 Wear protective gloves, clothing eye and face protection from competent authority.
P285 In case of inadequate ventilation wear respiratory protection
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 + P341 If inhaled: If breathing is difficult, 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
- P337 + P313 If eye irritations persists: get the medical advice / attention.
- P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician
- P305 + P351 + P338 If in eyes: remove contact lenses, if present and easy to do, rinse cautiously with water for several minutes
- P501 Dispose of content/container in accordance to local/national regulations

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Cas No	Percentage, %
Diamines	2855-13-2	1 – 10
3,5,5 – Trimethylcyclohexayamine	15901-42-5	90 – 95

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

Media Pemadam Sesuai:	Buih, Karbon dioksida, serbuk kimia kering. Pancutan air yang tidak sesuai
Arahan memadam kebakaran:	Jika kebocoran atau tumpahan tidak menyala gunakan semburan untuk menyebarkan wap dan untuk melindungi pekerja yang cuba menghentikan kebocoran. Pastikan bekas bersebelahan sejuk dengan menyembur dengan air. Padamkan dengan buih atau bahan kimia kering & cuba tutup tumpahan dengan buih. Untuk kebakaran besar hubungi pihak berkuasa bomba tempatan
Peralatan Perlindungan Khas:	Anggota bomba mesti memakai alat pernafasan serba lengkap.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear suitable protective clothing, gloves and eye / face protection.
Environmental Precautions:	Prevent entry into drain, sewers and water courses.
Decontamination Procedures:	Contain and collect spillages with non-combustible absorbent material e.g sand, earth vermiculite, diatoriacous earth and place in a suitable container for disposal.

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 area
Storage:	Suitable materials for storage are mild steel, stainless steel and aluminium containers. Plastic and rubbers are not recommended, although some polyolefin can be used for small quantities. Drum should be stored at ambient temperature.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Control Measures:	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
Personal Protective Equipment:	Imperious gloves (eg PVC). Safety glasses / goggles. Plastic apron. Change contaminated clothing immediately and cleans before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Colour	Colourless
Odour	Slight
pH (concentration)	Not applicable
Boiling Point / Range (°C)	200
Flash Point (closed °C)	>96
Specific Gravity	1.03
Water Solubility	Insoluble
% Volatiles (By Wt.)	<1.0%
Viscosity, cps	300 - 500

10. STABILITY AND REACTIVITY

Stability:	Stable under the recommended storage and handling conditions
Condition:	None known.
Material to avoid:	Keep away from oxidizing agents and strong alkaline and strongly acidic materials to prevent the possibility of exothermic reaction.
Hazardous Decomposition Product	Burning will produce dense, acrid smoke containing carbon dioxide, carbon monoxide and noxious fumes

11. TOXICOLOGICAL INFORMATION

Eye contact	Irritating
Skin contact	Frequent or prolonged contact may irritate and cause dermatitis. May be absorbed with possible systematic effects
By inhalation	High vapour concentration are irritating to eyes and respiratory tract, may cause headaches, dizziness, nausea, vertigo and unconsciousness and may have over central nervous effects.
Ingestion	Small amounts of liquids aspirated or pulmonary edema. Low toxicity.

12. ECOLOGICAL INFORMATION

There is no data available on the product itself. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface water. The Air Pollutions Control requirements of regulations made under the Environmental Protection Act may apply to use of this product.

Mobility	Very low viscous liquid
Persistence & Degradability	Hardener solids not readily biodegradable
Bio-accumulated Potential	Solvent can bio accumulated but with short retention time
Ecotoxicity	Not Available

13. DISPOSAL CONSIDERATIONS

Liquid surplus or wastes should be appropriate 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 recognized drum reconditioner. Empty containers may pose a fire and explosion hazard.

14. TRANSPORT INFORMATION

IATA-DGR	Not dangerous goods
IMDG-Code	Not dangerous goods

15. REGULATORY INFORMATION

In accordance to Malaysian Occupational Safety and Health:

Risk Phrases

R 22	Harmful if swallowed
R 38	Irritating to eyes

Safety Phrases

S 25	Avoid contact with eyes
S 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S 46	If swallowed seek medical advice immediately

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 users own assessment of workplace risk, as required by other health and safety legislation.

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