

SAFETY DATA SHEET

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

Product Name: **ESTOTECT ZINCRICH - HARDENER**
 Application: High Solids Zinc Modified Epoxy Coating Hardener
 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

Skin irritation: Category 1

Serious eye damage/eye irritation: Category 2

Hazardous to aquatic environment-acute hazard: Category 1

Specific target organ toxicity-single exposure: Category 2 (respiratory system)

B. Label elements including precaution statements.

- Symbol:



- Signal word: Warning
- Hazard Risk Statement
 - H315 Cause skin irritation.
 - H319 Causes serious eye irritation.
 - H335 May cause respiratory irritation.
 - H411 Toxic to aquatic life with long lasting effects
- Precautionary Statement (Prevention)
 - P233 Keep container tightly closed
 - P264 Wash hand thoroughly after handling
 - 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
 - P363 Wash contaminated clothing before reuse
 - P302 + 352 If on skin: Wash with plenty of soap and water
 - P304 + 340 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 - P332 + 313 + 362 If skin irritation occurs: Take off contaminated clothing and wash before reuse. Get medical advice/attention.

P305 + 351 + 338	If in eyes: Remove contact lenses, if present and easy to do, rinse cautiously with water for several minutes.
P303 + 361 + 353	If on skin (on hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower
P337 + 313	If eye irritation persists: Get medical advice/attention
P403 + 233	Store in a well-ventilated place. Keep container tightly closed
P405	Store lock up
P501	Dispose of content/container in accordance to local/national regulation

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	Cas No	Wt, %
Diamines	25513-64-8	30-40
3,5,5-Trimethylcyclohexylamine	15901-42-5	1-10
Alkyl Glycidyl Ethers	68609-96-1	1-10
Filler	14807-96-6	30-40

4. FIRST AID MEASURES

Eyes	: Flush eyes with plenty of water. If irritation persists, seek medical attention.
Skin	: Clean with a proprietary cleanser and wash with soap and water; do not use solvents. Remove contaminated clothing and clean before re-use. If symptoms occur, seek medical attention.
Inhalation	: Remove victim to fresh air. Keep warm and at rest. If recovery is not rapid, seek immediate medical attention.
Ingestion	: If swallowed, do not induce vomiting. Rinse mouth with water. Seek prompt medical attention.

5. FIRE FIGHTING MEASURES

Fire Extinguishing Media	: Alcohol-resistant foam. Carbon Dioxide CO ₂ , dry sand, limestone powder.
Special Hazards	: 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.
Protective Equipment for firefighters	: Self-contained breathing apparatus is recommended. Avoid contact with skin.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	: Eliminate sources of ignition. Ensure adequate ventilation or use respiratory protection. Prevent skin and eye contact.
Environmental Precautions	: Prevent entry into drains, sewers, and water courses.
Decontamination Procedures	: 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 rubbers 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

- 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.
- Eye protection : Wear goggles or safety glasses with side protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Viscous Liquid
Colour	Cream
Odour	Low
pH (concentration)	Not applicable
Boiling Point / Range (°C)	Not available
Flash Point (°C)	> 120
% Volatiles (By Wt.)	< 5.0
Specific Gravity @28°C	1.480 ±0.1
Water Solubility	Not soluble
Viscosity @ 28°C (cps)	20,000-40,000

10. STABILITY AND REACTIVITY

- Conditions to avoid : Exposure to high temperature or flames.
- Materials to avoid : Strong oxidising agents, peroxides.
- Hazardous Decomposition : Nitrogen Oxides, chlorine, ammonia, carbon monoxides, carbon dioxide, monoxide and other noxious fumes.
- Chemical Stability : Stable

11. TOXICOLOGICAL INFORMATION

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

12. ECOLOGICAL INFORMATION

Mobility:	Viscous Liquid
Degradability:	Not available
Aquatic toxicity:	Not available

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

Shipping name:	Environmentally hazardous substance, liquid, n.o.s (epoxy resin (MW ≤ 700))		
UN Number:	3082	IMDG Class:	3.3
ICAO/IATA Class:	3.3	IMDG Packing Group:	III
ICAO/IATA Packing Group:	III		

15. REGULATORY INFORMATION

No information available

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.

SDS	Estotect Zincrich - Hardener
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