

SAFETY DATA SHEET

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

Product Name: **ESTOCRETE WR- HARDENER**
Application: Hardener component of two part epoxy mortar
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 & Eye Irritation: Category 2
Skin Sensitisation: Category 1
Aquatic Chronic: Category 2

B. Label elements including precaution statements.

- Symbol:



- Signal word: Danger
- Hazard Risk Statement
H303 May be harmful if swallowed
H312 Harmful in contact with skin
H314 Causes severe skin burns and eye damage
H315 Cause skin irritation.
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects
- Precautionary Statement (Prevention)
P201 Obtain special instruction before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray
P264 Wash thoroughly after handling
P272 Contaminated work clothing should not be allowed out of the workplace
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P362 Take off contaminated clothing and wash before reuse.
P332 + P313 If skin irritation occurs. Get medical advice / attention.
P302 + 350 If on skin. Gently wash with soap and water
P305 + 351 + 338 If in eyes. Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	Cas Number	%
Polyaminoamide	112-57-2	25-30
Filler	14807-96-6	30-35
Silica Sand	14808-60-7	35-45
Pigment	N/A	0-1

All constituents of this product are listed in EINECS (European Inventory of Existing Commercial Chemical Substances) or EILINCS (European List of New Chemical Substances) or are exempt. Refer to Section 8 for Occupational Exposure Limits.

4. FIRST AID MEASURES

Eyes:	Irrigate immediately with copious of quantity of water for several times. Obtain medical attention urgently.
Skin:	Wash immediately with soap and water or suitable skin cleanser. Remove contaminated clothing immediately.
Inhalation:	Remove from exposure. If feeling unwell obtain medical attention
Ingestion:	Wash put mouth with water. Obtain medical attention urgently. Do NOT induce vomiting. Beware of aspiration if vomiting occurs.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Carbon dioxide, powder, foam or water.
Special Exposure Hazards:	Toxic fumes. Nitrogen compounds, in some fire circumstances, hydrogen cyanide
Special Protective Equipment:	Self-contained breathing apparatus.

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:	Soak up with inert absorbent or contain and remove by best available means. Gather into containers. Dispose of as waste.

7. HANDLING AND STORAGE

Handling:	Maintain good standards of personal hygiene. Avoid skin and eye contact. Ensure adequate ventilation.
Storage:	Store in cool, dry area. Never leave a container unsealed.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Occupational Exposure Limits:	None assigned.
Engineering Control Measures:	Use only in well ventilated areas.
Personal Protective Equipment:	Imperious gloves (eg PVC). Safety glasses / goggles. Avoid skin and eye contact. Plastic apron and overalls.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Viscous liquid
Colour	Black
Odour	Amine
pH (concentration)	10-11
Melting Point / Range (°C)	Not applicable
Flash Point (closed °C)	>200
Autoflammability (°C)	Autoignition temperature:> 325
Explosive properties (%)	Not applicable
Oxidising Properties	Not determined
Vapour Pressure (kPa at 20 °C)	0.02
Relative Density (at 20 °C)	1.78
Water Solubility	Insoluble

10. STABILITY AND REACTIVITY

Stability:	Stable if used as directed
Condition:	None known.
Material to avoid:	Strong acids. Strong oxidising agents.
Hazardous Decomposition Product:	Thermal decomposition:- Oxides of carbon. Nitrogen compound in some fire circumstances, hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

The following toxicological assessment is based on knowledge of the toxicity of the product's components.
Oral LD50, rat >2000 mg/kg.
Classified as a skin sensitiser

Health Effects

On eyes:	Causes transient irritation
On skin:	Irritation. May cause sensitisation.
By inhalation:	May cause respiratory irritation.
By ingestion:	May cause irritation of mouth, throat and digestive tract.
Chronic:	Repeated and prolonged skin contact may lead to skin disorders.

12. ECOLOGICAL INFORMATION

Environmental Assessment:	When used and disposed of as intended, no adverse environmental effects are foreseen.
Mobility:	Thixotropic liquid. Insoluble in water.
Persistence & Degradability:	Expected to be not readily biodegradable.
Bio-accumulated Potential:	Not determined
Ecotoxicity:	Not ecotoxic to fish /daphnia / algae.

13. DISPOSAL CONSIDERATIONS

Disposal must be in accordance with local and national legislation.

Unused Product:	Dispose of through an authorised waste contractor to a licensed site. May be reacted with base component to give an inert polymeric material
Used / Contaminated Product:	Disposed of through an authorised waste contractor to a license site.
Packaging:	Must be disposed of through an authorised waste contractor.

14. TRANSPORT INFORMATION

This product is NOT classified as dangerous for transport.

15. REGULATORY INFORMATION

Hazard Label Data

Name Ingredients:	Polyaminoamide
Symbols (s):	Xi
Risk Phrases:	Irritating to eyes and skin May causes sensitisation by skin contact.
Safety Phrases:	Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye / face protection.
EC Directives:	Dangerous Preparation Directive, 88/379/EEC Dangerous Substance Directive, 67/548/EEC and adaptations Safety Data Sheet Directive, 91/155/EEC
Statutory Instruments:	Chemical (Hazard Information and Packaging for Supply) (Amendment) Regs. 1996 (SI 1092) Control of Substances Hazardous to Health Regs. 1994 (SI 3246) Health and Safety at Work, etc Act 1974 Environmental Protection (Duty of Care) Regs. 1991 (SI 2839)
Codes of Practice:	Waste Management. The Duty of Care.

Guidance Notes: Occupational skin diseases: Health and safety precautions (EH26)

The above publications are available from HMSO.

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.

Further copies of this Safety Data Sheet may be obtained from Denka Construction Solutions Sdn Bhd, Malaysia.

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