

SAFETY DATA SHEET

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

Product Name: **ESTOBOND EC(X) PART B (HARDENER)**
 Application: Epoxy hardener
 Use advised against: No additional information available
 Company: **PT HISSAN TRADING INDONESIA**
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2. HAZARD IDENTIFICATION

A. Classification of the substance and mixture:

- Health Hazard
 - Skin Corrosion/Irritation : Category1
 - Serious Eye Damage/Eye Irritation : Category1

B. Label elements and precautionary statement:

- Symbol
- Hazard Risk Statement
 - H302 Harmful if swallowed.
 - H315 Causes skin irritation.
 - H317 May cause allergic skin reaction.
 - H319 Cause serious eye irritation.
- Precautionary Statements :
 - P264 Wash ... thoroughly after handling.
 - P272 Contaminated work clothing should not be allowed out of the workplace.
 - P273 Avoid release to the environment.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection.
 - P301+P312 If swallowed: Call a POISON CENTER or doctor/physician if you feel unwell.
 - P302+P352 If on skin: Wash with plenty of soap and water.
 - P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P330 Rinse mouth.
 - P332+P313 If skin irritation occurs: Get medical advice/attention.
 - P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 - P337+P313 If eye irritation persists: Get medical advice/attention.
 - P362 Take off contaminated clothing and wash before reuse.
 - P405 Store locked up
 - P501 Dispose of contents/container to
- Other Hazard-which do not result in classification criteria: No data

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Content (%)
Polyamide resin	68953-36-6	15~25
Aliphatic amine	112-24-3	1~10
Calcium carbonate	471-34-1	70~80
Black pigment	1333-86-4	< 0.3

4. FIRST AID MEASURES

Eye contact	Flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Consult a physician immediately.
Skin contact	Immediately remove contaminated clothing or shoes, wash skin with plenty of water for at least 15 minutes.
Inhalation	Move person to fresh air area and provide oxygen if breathing is difficult. Provide oxygen if breathing is difficult. Consult a physician immediately.
Ingestion	Do not induce vomiting. Consult a physician immediately.
Indication of immediate medical attention and notes for physician	Get adequate measure with the symptoms. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extihuish media

Suitable extinguishing media	Dry chemical, carbon dioxide, water, foam in use.
Unsuitable extinguishing media	No data
Conflagration	Use foaming agent in use or water spray.

Specific hazards arising from the chemical

Combustion product	May cause hazardous and toxic product such as chloride, carbon oxide, methane, methanol, formaldehyde and acetic acid.
Fire-fighting hazard	Dense smoke, violent steam
Special protective actions for fire-fighters	Isolate from heat, electrical equipment, sparks and opened
precautions for fire-fighters flame	Were self-contained breathing apparatus. Keep unauthorized personnel away.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use protective equipment as required Avoid skin contact or inhalation Avoid inhalation of asbestos dust.
Environmental precautions and protective procedures	
Air	No data
Soil	No data
Underwater	Prevent waste water to flow into the waterway, drain, and underwater.
Methods and materials for containment and cleaning up	
Little leakage	Absorpt with sand or nonflammable material. Store in an airtight container.
Enormous leakage	All disposal methods must be in compliance with applicable local regulations. Dike far ahead of liquid spill for later disposal.

7. HANDLING AND STORAGE

Precautions for safe handling	Ventilate closed spaces before entering.
Conditions for safe storage:	Store at good place of ventilation. Avoid to contact with fire source.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Control parameters

Domestic regulations	No data
ACGIH (TLV)	No data
NIOSH (REL)	No data
OSHA (PEL)	No data
NIOSH (IDLH)	No data
ACGIH (BEI)	No data
- Appropriate engineering controls safety

	Good general ventilation sufficient under most conditions, but local exhaust ventilation may be necessary for some operations.
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- Personal protective equipment

Respiratory protection	Air filter respiratory protection. (Organic mask is worn.)
Eye protection	Wear protective goggles.
Hands protection	Wear chemical resistant gloves.
Body protection	Wear chemical resistant clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	Paste
Color	Grey
Odor	Ammonia odor
Odor threshold	No data
pH	12
Melting point/freezing point	No data
Initial boiling point & boiling range	No data
Flashing point	> 135°C
Evaporation rate	No data
Flammability (solid, gas)	No data
Upper/lower flammability or explosive limits	No data
Vapor pressure	1mmHg (at 100°C)
Solubility	Soluble in water
Vapor density	>1 [Air=1]
Relative density	1.3 – 1.4
Partition coefficient: n-octanol/water	No data
Auto-ignition temperature	No data
Decomposition temperature	No data
Viscosity	Paste
Formula mass (Mw)	No data

10. STABILITY AND REACTIVITY

- | | |
|------------------------------------|--|
| Chemical stability | Stable in recommended conditions. |
| Possibility of hazardous reactions | Vapors may travel to source of ignition and flash back.
Run off to sewer may create fire or explosion hazard. |
| Conditions to avoid | Keep away from heat/sparks/open flames/hot surfaces. |
| Incompatible materials | Acid, amine, anhydride, oxidizing agent, chloroform, chloroform ahs |

Hazardous decomposition
Products

May produce hazardous carbon oxide, hydrogen,
methane and methyl products alcohol.
Fire may produce irritating, corrosive and/or toxic gases..

11. TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure

by mouth	May cause mouth irritation.
by skin and contact	May cause skin irritation.
by eye and contact	May cause eye irritation.

Delayed and immediate effects as well as chronic effects from short- and long-term exposure

Acute toxic	
Oral	LD50 2885 mg/kg Rat
Dermal	LD50 2980 mg/kg Rabbit
Inhalation	No data
Skin corrosive/irritant	No data
Serious eye damage/eye irritation	No data
Respiratory sensitization	No data
Carcinogenicity	No data
Germ Cell Mutagenicity	No data
Reproductive toxicity	No data
Specific target organ toxicity (single exposure)	No data
Specific target organ toxicity (repeated exposure)	No data
Aspiration hazard	No data

12. ECOLOGICAL INFORMATION

A. Aquatic and terrestrial ecotoxicity	
fish	LC50 >220 mg/L , 96 hr <i>Oryzias latipes</i>
crustacea	No data
aquatic plant	No data
B. Persistence and degradability	No data
C. Bioaccumulative potential	No data
D. Mobility in soil	No data
E. Other adverse effects	No data

13. DISPOSAL CONSIDERATIONS

Disposal method	Dispose of contents/container to the regulations
Disposal considerations	No data

14. TRANSPORT INFORMATION

UN number	No UN transportation hazard classification available
UN proper shipping name	Not applicable
Transport hazard class	Not applicable
Packing group	Not applicable
Marin pollution	No data available
Special precaution which a user to be aware of or needs to complain with in connection with transport or conveyance either within or outside their premises	

Emergency procedure at fire
Emergency procedure at leakage

Not applicable
Not applicable

15. REGULATORY INFORMATION

Occupational Safety and Health Act	No data
Toxic Chemical Control Act	No data
Safety Control Dangerous Substance Act	Class4, Class4 petroleum
Wastes Control Act	No data
Other requirements in domestic and other countries	
Domestic regulation	
Persistent Organic Pollutant Control Act	Not applicable
Other countries	
USA (OSHA)	Not applicable
USA (CERCLA)	Not applicable
USA (EPCRA 302)	Not applicable
USA (EPCRA 304)	Not applicable
USA (EPCRA 313)	Not applicable
USA (Rotterdam Convention material)	Not applicable
USA (Stockholm Convention material)	Not applicable
USA (Substance Montreal Protocol)	Not applicable
EU (Classification)	Xn Hazardous C Corrosive
EU (Risk Phrases)	R21/22 Harmful in contact with skin and if swallowed. R34 Causes burns. R43 May cause sensitization by skin contact. R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
EU (Safety Phrases)	S1/2 Keep locked up and out of the reach of children. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

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 PT. Hissan Trading Indonesia.

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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