

# SAFETY DATA SHEET

## 1: IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product Name: **ESTOCRETE MF - HARDENER**  
 Application: Binder for flooring material  
 Use advised against: No additional information available  
 Company: **PT. HISSAN TRADING INDONESIA**  
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## 2: HAZARDS IDENTIFICATION

Type of product: Mixture

### A. Hazard Risk Classification

The preparation is classified as dangerous according to Directive 1999/45/EC its amenotments.  
 Classification xn; R20  
 X;R36/37/38  
 R42/43

### Emergency Overview

Reacts slowly with water to produce carbon dioxide which may rupture closed containers. This reaction accelerates at higher temperatures.

Appearance  
 Liquid

Potential Acute Health Effects  
 Inhalation

This product is a respiratory irritant and poterial respiratory sensitiser, repeated inhalation of vapour or aerosol at levels above the occupational exposure limit could cause respiratory senaltisation. The onset of the respiratory symptones may be delayed for several hours after exposure. A hyper-reactive responses to even minimal concentrations of MDI may develop in sensitised persons.

## 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No.	Content, %
United Kingdom (UK) Diphenylmet-handiscyanate, isomers and homologues	9016-87-9	30 - 60
Diphenylmelhane 4,4 diisocyanate	101-66-6	30 - 60
Diphenylmelhane 2,4 diisocyanate	5873-54-1	7 - 13

See section 16 for the fall text of the R Phran declared above

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#### 4: FIRST AID MEASURES

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Description of first aid measure,	
Eyes:	Immediately irrigate with eyewash solution or clean water, holding the eyelide apart, for at least 10 minutes. Obtain immediate medical attention.
Skin:	Remove contaminated clothing. After contact with skin, wash immediately with plenty of warm soapy water. If symptoms develop, obtain medical attention. Contaminated clothing should be thoroughly cleaned. An MDI study has demonstrated that a polyglycol-based skin cleaner or com oil may be more effective than soap and water.
Inhalation:	Remove patient from exposure, keep warm and at rest. Obtain immediate medical attention. Treatment is symptom-matic for primary irritation or bronchospasm. If breathing is laboured, oxygen should be administered by qualified personnel. Apply artificial respiration if breathing has ceased or shows signs of falling.
Ingestion:	Do not induce vomiting. Do not swallow. Provided the patient is conscious, wash out mouth with water. Obtain immediate medical attention.
Further Medical Treatment:	Symptomatic treatment and supportive therapy as indicated. Following severe exposure the patient should be kept under medical review for at least 48 hours.

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#### 5: FIRE FIGHTING MEASURES

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Extinguishing media suitable: foam, CO<sub>2</sub> or dry powder. Water may be used if no other available and then in copious quantities. Reaction between water and hot iso-cyanate may be vigorous. Prevent washings from entering water courses, keep fire exposed containers cool by spraying with water.

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#### 6: ACCIDENTAL RELEASE MEASURES

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Personal precautions:	Splash goggles, full suit boots, gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product.
Environmental precautions and: Cleanup methods	Evacuate the area. Keep upwind to avoid inhalation of vapours. Clean-up should only be performed by trained personnel. People dealing with major spillage
Reference to other sections:	For further disposal measures see section 13.

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#### 7: HANDLING AND STORAGE

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**Precautions for safe handling:**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes.

Precautions should generally be taken against electrostatic charges according to the equipment used and the way the product is handled and packaged.

Keep away from foodstuffs, drinks and tobacco. Wash hands before breaks and at the end of workday. Keep working clothes separately. Change contaminated or soaked clothing.

**Conditions for safe storage, including any incompatibilities:**

Keep container dry and tightly closed in a cool and well-ventilate place. Further information on the storage conditions which must be observed to preserve quality can be found in our product information sheet.

VCI storage class (VCI = German Association of the Chemical Industry): 10

## 8: EXPOSURE CONTROL/PERSONAL PROTECTION

### Control parameters

No information on Exposure Limit Values necessary according to EC directive 2006/121/EG

### Exposure controls

#### Hand protection:

Protective gloves are recommended.

Conditionally suitable materials for protective gloves; EN 374:

Nitrile rubber - NBR ( $\geq 0.35$  mm)

Breakthrough time not tested; dispose of immediately after contamination.

#### Eye protection:

Wear eye/face protection.

#### Skin and body protection:

Wear suitable protective clothing.

## 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:	liquid	
Colour:	white	
Odour:	almost odourless	
Odour Threshold:	not established	
pH:	8.9	
Pour point:	not established	
Initial boiling point:	approx. 100 °C	DIN 53171
Flash point:	ca. 127 °C	DIN EN 22719
Evaporation rate:	not established	
Flammability (solid, gas):	not applicable	
Burning number:	not applicable	
Vapour pressure:	ca. 3 hPa at 20 °C	EG A4
	ca. 11 hPa at 50 °C	EG A4
	ca. 13 hPa at 55 °C	EG A4
Vapour density:	not established	
Density:	ca. 1.01 g/cm <sup>3</sup> at 20 °C	DIN 51757
Solubility in water:	emulsifiable	
Surface tension:	not established	
Partition coefficient (n-octanol/water):	not established	
Autoignition temperature:	not applicable	
Ignition temperature:	not established	DIN 51794
Decomposition temperature:	not established	
Viscosity, dynamic:	ca. 850 mPa.s at 20 °C	ISO 2431
Explosive properties:	not established	
Dust explosion class:	not applicable	
Oxidising properties:	not established	

Other information: The indicated values do not necessarily correspond to the product specification.  
Please refer to the technical information sheet for specification data

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## 10: STABILITY AND REACTIVITY

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Chemical stability: No decomposition below initial flash point  
Possibility of hazardous reactions: No hazardous reactions observed.  
Hazardous decomposition products: No hazardous decomposition products when stored and handled correctly.

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## 11: TOXICOLOGICAL INFORMATION

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### Information on toxicological effects

#### Acute toxicity, oral:

LD50 rat: > 5,000 mg/kg

#### Primary skin irritation:

Species: rabbit  
Result: non-irritant

#### Primary mucosae irritation:

Species: rabbit  
Result: non-irritant

#### Sensitisation:

Skin sensitization (local lymph node assay (LLNA)):  
Species: mouse  
Result: negative  
Method: OECD Test Guideline 429  
Toxicological studies at the solvent-free product

#### Genotoxicity in vitro:

Test type: Salmonella/microsome test (Ames test)  
Result: No indication of mutagenic effects.  
Method: OECD Test Guideline 471

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## 12: ECOLOGICAL INFORMATION

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Do not allow to escape into waterways, wastewater or soil.

### Toxicity

#### Acute Fish toxicity:

LC50 > 100 mg/l  
Species: Danio rerio (zebra fish)  
Exposure duration: 96 h  
Method: OECD Test Guideline 203

#### Acute toxicity for daphnia:

EC50 > 100 mg/l  
Species: Daphnia magna (Water flea)  
Exposure duration: 48 h  
Method: OECD Test Guideline 202

#### Acute toxicity for algae:

IC50 > 100 mg/l  
Species: scenedesmus subspicatus  
Exposure duration: 72 h  
Method: OECD Test Guideline 201

**Acute bacterial toxicity:**

EC50 > 1,000 mg/l  
Species: activated sludge  
Method: OECD Test Guideline 209

**Persistence and degradability**

**Biodegradability:**

Biodegradation: 12 %, i.e. not readily degradable  
Method: OECD Test Guideline 301 D

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### 13: DISPOSAL CONSIDERATIONS

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Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

### Waste treatment methods

After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations. None disposal into waste water.

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### 14: TRANSPORT INFORMATION

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**ADR/RID** Not dangerous goods

**ADN** Not dangerous goods

This classification data does not apply to transportation by tanker. If required, additional information can be requested from the manufacturer.

**IATA** Not dangerous goods

**IMDG** Not dangerous goods

Special precautions for user: Not dangerous cargo.  
Keep dry.  
Keep separated from foodstuffs.

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### 15: REGULATORY INFORMATION

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**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Water contaminating class (Germany):** 1 slightly water endangering (in accordance with Annex 3 to the Directive on Water-Hazardous Substances)

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### 16: OTHER INFORMATION

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Also refer to the Safety Data Sheet (s) for information on other components of this product. 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 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 PT. Hissan Trading Indonesia.

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**SDS** : **Estocrete MF - Hardener**  
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