

SAFETY DATA SHEET

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

Product Name: **ESTOPROOF 3P/4P**
 Application: The Waterproof Work of Constructions and Structures
 Use advised against: No additional information available
 Company: **PT. HISSAN TRADING INDONESIA**
 Address: 18 Office Park Lt. 15 Suite A, Jl. TB Simatupang Kav. 18, Jakarta Selatan, 12520 Indonesia
 Telephone: +62-21-2278 4182 Fax: +62-21-2278 4186

2. HAZARDS IDENTIFICATION

A. Classification of substance or preparation

This is classified as the category of hazardous substances Xi; R38-41.

The contact of this product with skin causes severe irritation as well as it can cause serious damage to eyes.

Strong heating produced in the process of welding can cause the appearance of gases and fumes as well as penetration of the bitumen in the skin, which can cause burns. Escaped gases and fumes may cause irritation to eyes, skin and respiratory tract.

B. Label elements including precaution statements.

- Symbol:



XI
Irritant

Marking in accordance with (1075/2011)

| | |
|-----------|--|
| R38 | Irritation of skin |
| R41 | Possible serious damage of eyes |
| S2 | Keep out reach of children |
| S25 | Avoid contact with eyes |
| S26 | If substance contact with eyes, rinse immediately and call medical assistance |
| S28 | After contact of substance with skin immediately rinse contact area with water |
| S36/37/39 | By handling of substance use protective clothing, gloves and glasses/ mask |
| S64 | By ingestion of substance, rinse your mouth immediately with water (only if injured person is alert) |

Other area where substance may be hazardous: no found

PBT/ vPvB : Substance components are not assessed to be a PBT/ vPvB in accordance with criteria of the Regulation EC concerning REACH, Annex XIII.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Name | CAS Number | EC Number | Index Number | Weight-% | Reg.-Number REACH | Classification |
|-----------------------------|------------|-----------|--------------|----------|-------------------|---|
| Air-blown bitumen | 64742-93-4 | 265-196-4 | -- | 35-45 | -- | - |
| Calcium carbonate | 1317-65-3 | 215-279-6 | | 35-45 | | Xi; R38 R41 CLP* Skin irritation 2; H35 Eye damage 1: H318 |
| Polyethylene, Terephthalate | 25038-59-9 | | | 5-10 | | Xi; R36/37/38 CLP: Skin irritation 2; H315 Skin irritation 2; H319 STOT SE 3:H335 |

CLP*: Regulation EC no. 1272/2008 of European Parliament and Council of European Union.
Please see complete explanation of positions R and H under clause 16 of this data sheet.

4. FIRST AID MEASURES

Description of first aid measures :

While drawing of substance into your respiratory tract :

Move to fresh air. If effects persist, please, call medical assistance.

If you exposed to substance by skin contact :

Rinse carefully place of contact with water and soap then lubricate with fat cream. If the irritation persist, please call medical assistance.

If you exposed to substance by eye contact :

Please, begin immediately to rinse your eyes with water or saline solution and continue for at least 15 minutes. Remove your contact lenses if any. If the irritation persist, please call medical assistance. Continue to rinse eyes until arrival of a doctor.

While drawing of substance into your mouth :

Immediately rinse your mouth with water and drink plenty of water. Observe following recommendations if you can not immediately call medical assistance: do not cause vomiting, keep the head low to prevent aspiration. Do not give water to injured person if he lost consciousness.

For burns :

Rinse place of burns with water until pain is over. By rinsing make the place of burns free of cloths if possible. If the examination by a doctor is necessary, please, continue to rinse the place of burn until arrival of a doctor.

Acute or delayed symptoms and measures :

The contact of this product with skin causes serious irritation as well as it may cause serious damage to eyes. Strong heating used in the process of welding can cause the appearance of gases and fumes as well as penetration of the bitumen particles in the skin, which may cause burns. Gases and fumes may cause irritation of eyes, skin and respiratory tract.

Indications for immediate calling medical assistance or admission to hospital

In case of burns: it is not necessary to remove remains of substance from the skin as they do not prevent wound healing.

5. FIRE FIGHTING MEASURES

Fire Fighting Techniques :

Fire extinguisher, fire extinguishing agent or carbonate

Special precautions by handling of substance / preparation :

The product is not flammable but it can ignite / burn. Avoid drawing of combustion products into respiratory tracts.

Instructions for fire fighting staff :

Take the packing away if possible and cool it down with water. Use individual gas mask by fire fighting.

6. PRECAUTIONS BY SPILLAGE OF SUBSTANCES

Personal precautions, individual protection equipment and first aid procedure :

While handling substance use personal protection equipment as described under clause 8.

Environment protection measures:

Do not discharge the substance in sewerage - see clause 12. By release of substance to the environment, please, contact your local environment protection authorities.

Methods and equipment for containment and treatment

Fill the place of spillage with sand or any other absorbent material if serious leakage of substance is occurred. Thereafter collect the substance remains and dispose them according to rules of utilization of chemical wastes. Wash the place of substance spillage with water. See information on disposal of wastes under clause 13.

References to other clauses thereof:

See above.

7. HANDLING AND STORAGE

Rules of safe handling of the substance :

Avoid drawing of gases and substance vapours into respiratory tracts. Avoid contact of substance with skin and eyes. Handling of bitumen as roofing materials and other works connected with hydrostatic pressure and water proofing while using bitumen products must be performed by certified and instructed personal.

Conditions of safe storage of substance, possible incompatibility with other substances :

The product must be stored in original packing in dry well - aired places. Keep the product away from direct sunlight.

Flammability class of the substance: —

Special use of the substance:

See clause 1 Use of substance

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Control parameters :

Following substance ingredients have limit values according to the Regulation No. 507/2011 on limit values of the substances and materials:

bitumen fumes, dust of general origin containing cyclohexane 1mg/m³

Compliance with limit value standards may be adjusted by controlling sanitary standards and rules on site.

DNEL : absence of CSR

PNEC : absence of CSR

Substance exposure control :

Appropriate measures of substance exposure control: good ventilation must be ensured while handling of the substance.

Personal precautions:

Inhalation : as a rule it is not necessary to use gas mask while handling of the substance. Use gas mask fitted with filters A2 / P2 or ones of similar type while handling of the substance in closed rooms or in still air. Be aware of recommendations of manufacturer in relation to use of the substance. Skin: use protective gloves withstanding high temperatures.^{*)}

^{*)} Please note that there are many different types of work gloves therefore it is important to be aware of recommendations of manufacturer in relation to use of the substance.

Eyes : use tight protective glasses while handling of the substance.

Mitigation measures :

Production wastes must be collected and disposed as described in clause 13. Treatment and sewage discharge must be performed according to local requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information on physical and chemical properties :

| | |
|--|---|
| Appearance: solid, black | Vapour density: - |
| Odour: odorless | Relative density: - 3,6-3,8 kg/m ² |
| Odour threshold: - | Water solubility: insoluble substance |
| pH: - | n-octanol / water partition coefficient: - |
| Melting / freezing point: +150°C/-10°C | Self-ignition temperature: - |
| Boiling temperature and boiling range: - | Break-down temperature: - |
| Ignition temperature: - | Substance viscosity: - |
| Evaporation rate: - | Explosive properties of the substance: - |
| Ignition: - | Oxidizing properties of the substance: - |
| Upper / Low limits of ignition or explosion hazard vol. %: - | Other data: |
| Vapour pressure: - | Softening temperature: +150°C |

-: this symbol means that there are no data available in relation to this value or this information is not relevant.

10. STABILITY AND REACTIVITY

Reactibility :

The substance is stable.

Chemical stability :

The substance is stable subject to adherence to storage conditions.

Risk of dangerous reactions :

not determined.

Invalid reactions :

not determined.

Incompatible materials :

not determined.

Hazardous breakdown products :

By heating of the substance (chemical process of decomposition) there will be hazardous fumes released.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects :

| Hazard type | Information | Test | Source |
|--------------------------|---|----------------------|----------------------|
| Acute toxicity : | Air-blown bitumen : | | |
| Inhalation | LC ₅₀ (rats) : >94,4 mg/m ³ | OECD 403 | ECHA |
| Skin | LD _{Lo} (rabbits) : >2000 mg/kg | OECD 402 | ECHA |
| Oral | LC ₅₀ (rats) : >5000 mg/kg | OECD 401 | ECHA |
| Poisoning/ Irritation | Irritation of skin (rabbit) : none Eyes (rabbit) : no irritation | OECD 404 OECD 405 | ECHA ECHA |
| Sensitisation | Skin sensitisation : none | OECD 406 | ECHA |
| CMR : | Carcinogenic effect : The substances has not any carcinogenic effect on human (Group 3) Mutagenicity : rather negative results by genotoxicity test Toxicity for reproduction : there are no negative effects on reproduction by the substance concentration less than 300 mg/m ³ | - - OECD 402 | IARC ECHA ECHA |
| Acute toxicity : | Calcium carbonate : | | |
| Inhalation | LC ₅₀ (rats) : no data | - | - |
| Skin | LD ₅₀ (rabbits) : no data | - | - |
| Oral | TLC _{Lo} (rats) : 84 mg/m ³ /4 h | - | RTECS |
| Poisoning/ irritation | Irritation of skin (rabbits) : no data Eye (rabbits) : no data | - - | - - |
| Sensitisation | Skin sensitisation : no data : Respiratory sensitisation (mice) : none | - | - |
| CMR : | Carcinogenic effect : no data Mutagenicity : no data Toxicity for reproduction : no data Developmental toxicity : no data | - - - - | - - - - |

There are no data in relation to other substance ingredients.
Skin, lungs and gastrointestinal tract are exposed to the substance for the most part.

Symptoms :

While drawing of substance into your respiratory tract :

Fumes and substance vapours may cause irritation of respiratory tract.

If you exposed to substance by skin contact :

The substance causes severe irritation of skin.

If you exposed to substance by eye contact :

Fumes of the substance cause severe irritation of eyes. There is a risk of serious eye injury.

Ingestion :

may cause sickness, vomiting.

Delayed effects :

Long-term inhalation of bitumen may cause bronchitis and other respiratory diseases.

12. ECOLOGICAL INFORMATION

| Aquatic plants/ water animals | Information | Test (channel) | Source |
|-------------------------------|---|----------------|--------|
| Fish | Air-blown bitumen : LL ₅₀ (estimated) : >1000 mg/l | QSAR | ECHA |
| Crustaceans | LL ₅₀ (estimated) : >1000 mg/l | QSAR | ECHA |
| Algae | EL ₅₀ (estimated) : >1000 mg/l | QSAR | ECHA |

There are no relevant data on the substance ingredients for ecological classification according to the regulations of the Ministry of Environment Protection.

Persistence and degradability of the substance :

The product does not degrade.

Bioaccumulative potential of the substance :

no data available

Mobility of the substance in the soil :

no data available

Results of PBT and vPvB assessment :

Substance components are not assessed to be a PBT / vPvB in accordance with criteria of the Regulation EC concerning REACH, Annex XIII.

Other adverse effects of the substance :

not determined.

13. DISPOSAL CONSIDERATIONS

Methods of disposal:

Disposal of residues of this product requires special control and must be carried out according to local requirements.

Chemical group :
A

Fraction of waste :
3.25

EAC code :
17 03 02

14. TRANSPORT INFORMATION

The substance does not pertain to the group of dangerous substances.

UN number:

UN proper shipping name:

Transport hazard class:

Packing group:

Level of threats of harm to the environment:

Not applicable according to Transportation Regulation

Specific provisions in relation to man :

None

Transportation of goods in bulk according to Annex II of the Convention MARPOL 73 / 78 and International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk:

none

15. REGULATORY INFORMATION

Special regulations / laws concerning substances / preparations in relation to safety, human health and the environment:

The product is not allowed to be used by the persons under 18 (except for trainee).
Handling of bitumen as roofing materials and other works connected with hydrostatic pressure and water proofing while using bitumen products must be only performed by special certified and instructed personal

complying with following criteria of the following regulation :

- No. 292/2001 concerning handling of substances and materials as amended.

Chemical Safety Assessment

CSA is absent.

16. OTHER INFORMATION

Hazardous zones are indicated in clauses 2 – 3 :

- R36: Irritating to eyes
R37: Irritating to respiratory system
R38: Irritating to skin
R41: Risk of serious damage to eyes
H315: Causes skin irritation
H319: Causes serious eye irritation
H318: Causes serious eye damage
H335: May cause respiratory irritation

List of abbreviations :

ADR = European Agreement concerning the International Carriage of Dangerous Goods
At = Technical check-up
CMR = Carcinogenity, mutagenicity and toxicity for reproduction
CSA = Chemical Safety Assessment (REACH Regulation)
CSR = Chemical Safety Report
DNEL = Derived No-Effect level
EC50 = Effect Concentration 50%
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
LCso= Lethal Concentration 50%
LCso= Lethal Dose 50%
FW = Fresh water
ICAO: International Civil Aviation Organization

NOEL = No Observed Effect Concentration
PBT= Persistent, Bioaccumulative, Toxic
PNEC = Predicted No-Effect Concentration
RID = International Rule for Transport of Dangerous Substances by Railway
vPvB = very Persistent, very Bioaccumulative

Literature :

C &L Inventorydatabase = Industry Database
IUCLID = International Uniform Chemical Database Information
ECHA = European Chemical Agency

Training / Instruction :

This product may be only used by trained and certified personal and being aware of this safety data sheet.

Additional Information:

This safety data sheet was drawn up according to Regulation EC No. 1907/2006 concerning REACH.

Alterations in comparison with last version : -

Classification of substance / preparation :

The product is classified according to CLP as irritating to skin 2; H 315

Eye damage 1; H318.

The contact of this product with skin causes serious irritation as well as it may cause serious damage to eyes. Strong heating produced in the process of welding can cause the appearance of gases and fumes as well as penetration of the bitumen in the skin, which can cause burns. Gases and fumes may cause irritation of eyes, skin and respiratory tract.

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 user's 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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