1 Identification of the substance/preparation and of the company/undertaking

- Trade name: Transpoxy Hydro Finish 4.70 pack A
- Article number: 470a-2
- Application of the substance/preparation: Epoxy coating
- Manufacturer/supplier:
  KOSSAN PAINT (M) SDN. BHD.
  1, Jalan Koporat 1/KU 9, Taman Perindustrian Meru
  42200 Kapar, Selangor D.E. Malaysia.
  (Member of Transocean Coating)
- Information in case of emergency:
  Manufacturer/supplier.
  lskheong@kop.com.my

2 Hazards identification

- Hazard description:
  Xn Harmful

- Information concerning particular hazards for human and environment:
  The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
  R 10 Flammable.
  R 20/21 Harmful by inhalation and in contact with skin.
  R 36/38 Irritating to eyes and skin.
  R 43 May cause sensitisation by skin contact.
  Contains epoxy constituents. See information supplied by the manufacturer.
- Classification system:
  The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- GHS label elements
  Danger
  2.6/2 - Highly flammable liquid and vapour.
  Warning
  3.1/4 - Harmful in contact with skin.
  3.1/4 - Harmful if inhaled.
  3.2/2 - Causes skin irritation.
  3.3/2A - Causes serious eye irritation.
  3.4/1 - May cause an allergic skin reaction.
- Prevention:
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Keep container tightly closed.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.
  Use only non-sparking tools.
  Take precautionary measures against static discharge.

(Contd. on page 2)
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

*IF ON SKIN:* Wash with plenty of soap and water.
*IF ON SKIN (or hair):* Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
*IF INHALED:* Remove to fresh air and keep at rest in a position comfortable for breathing.
*IF IN EYES:* Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Call a POISON CENTER or doctor/physician if you feel unwell.
Specific treatment (see label).
Specific measures (see label).
If skin irritation occurs: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
Wash contaminated clothing before reuse.
In case of fire: Use for extinction: CO2, powder or water spray.

**Storage:**
Store in a well-ventilated place. Keep cool.

**Disposal:**
Dispose of contents/container in accordance with local/regional/national/international regulations.

---

**3 Composition/information on ingredients**

**Chemical characterization**

**Description:** Mixture of substances listed below with nonhazardous additions.

**Dangerous components:**

<table>
<thead>
<tr>
<th>CAS: 25036-25-3</th>
<th>Reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weigh &gt; 700)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NLP: 500-033-5</td>
<td>Xi; R 36/38-43, 3.2/2, 3.3/2A, 3.4/1</td>
</tr>
<tr>
<td>EINECS: 215-535-7</td>
<td>Warning: 2.6/2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 1330-20-7</th>
<th>Xylene, mixture of isomers</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 203-550-1</td>
<td>Xi; R 10-20/21-38</td>
</tr>
<tr>
<td>EINECS: 200-661-7</td>
<td>Warning: 3.1/3, 3.1/4, 3.2/2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 108-10-1</th>
<th>4-methylpentan-2-one</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 203-550-1</td>
<td>Xi; Xi; F; R 11-20-36/37-66</td>
</tr>
<tr>
<td>EINECS: 67-63-0</td>
<td>Warning: 2.6/2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 67-63-0</th>
<th>Propan-2-ol</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-661-7</td>
<td>Xi; F; R 11-36-67</td>
</tr>
<tr>
<td>EINECS: 200-661-7</td>
<td>Warning: 3.3/2A, 3.8/3</td>
</tr>
</tbody>
</table>

---

(Contd. of page 1)
Trade name: Transpoxy Hydro Finish 4.70 pack A

<table>
<thead>
<tr>
<th>CAS: 78-83-1</th>
<th>iso-butanol</th>
<th>Xi; R 10-37/38-41-67</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 201-148-0</td>
<td></td>
<td>Danger: 3.3/1, 3.3/2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warning: 2.6/3; 3.8/3</td>
</tr>
<tr>
<td>CAS: 8052-41-3</td>
<td>Stoddard solvent</td>
<td>Xn, N; R 10-51/53-65-66</td>
</tr>
<tr>
<td>EINECS: 232-489-3</td>
<td></td>
<td>Danger: 3.10/1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warning: 2.6/3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.1.C/2</td>
</tr>
<tr>
<td>EINECS: 200-659-6</td>
<td></td>
<td>Danger: 2.6/2; 3.1.O/2, 3.1.D/2, 3.1.I/2; 3.8/1</td>
</tr>
</tbody>
</table>

≤ 2.5%

Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· After inhalation:
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· After swallowing: If symptoms persist consult doctor.

5 Fire-fighting measures

· Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
· For safety reasons unsuitable extinguishing agents: Water with full jet
· Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
· Measures for environmental protection: Do not allow to enter sewers/surface or ground water.
· Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

7 Handling and storage

· Handling:
· Information for safe handling:
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

- **Information about fire - and explosion protection:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.

- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** No special requirements.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** Keep container tightly sealed.

---

### 8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>WEL Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>7727-43-7</td>
<td>Barium sulphate, precipitated (25-50%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 10** 4** mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*inhalable dust **respirable dust</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Xylene, mixture of isomers (10-25%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>WEL Short-term value: 441 mg/m³, 100 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 220 mg/m³, 50 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sk; BMGV</td>
</tr>
<tr>
<td>108-10-1</td>
<td>4-Methylpentan-2-one (2.5-10%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>WEL Short-term value: 416 mg/m³, 100 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 208 mg/m³, 50 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sk</td>
</tr>
<tr>
<td>67-63-0</td>
<td>Propan-2-ol (2.5-10%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>WEL Short-term value: 1250 mg/m³, 500 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 999 mg/m³, 400 ppm</td>
</tr>
<tr>
<td>78-83-1</td>
<td>Iso-butanol (≤2.5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>WEL Short-term value: 231 mg/m³, 75 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 154 mg/m³, 50 ppm</td>
</tr>
<tr>
<td>67-56-1</td>
<td>Methanol (≤2.5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>WEL Short-term value: 333 mg/m³, 250 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 266 mg/m³, 200 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sk</td>
</tr>
</tbody>
</table>

- **Additional information:** The lists valid during the making were used as basis.

- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - Keep away from foodstuffs, beverages and feed.
    - Immediately remove all soiled and contaminated clothing
    - Wash hands before breaks and at the end of work.
    - Avoid contact with the eyes and skin.
  - **Respiratory protection:**
    - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
### 9 Physical and chemical properties

#### General Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Fluid</td>
</tr>
<tr>
<td>Colour</td>
<td>According to product specification</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
</tbody>
</table>

#### Change in condition

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling point/Boiling range</td>
<td>82°C</td>
</tr>
</tbody>
</table>

#### Flash point

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 20°C</td>
<td></td>
</tr>
</tbody>
</table>

#### Ignition temperature

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>425°C</td>
<td></td>
</tr>
</tbody>
</table>

#### Self-igniting

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product is not selfigniting.</td>
<td></td>
</tr>
</tbody>
</table>

#### Danger of explosion

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product is not explosive.</td>
<td></td>
</tr>
<tr>
<td>However, formation of explosive air/vapour mixtures are possible.</td>
<td></td>
</tr>
</tbody>
</table>

#### Explosion limits

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
<td>1.1 Vol %</td>
</tr>
<tr>
<td>Upper</td>
<td>7.0 Vol %</td>
</tr>
</tbody>
</table>

#### Vapour pressure at 20°C

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.7 hPa</td>
<td></td>
</tr>
</tbody>
</table>

#### Density at 20°C

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.44012 g/cm³</td>
<td></td>
</tr>
</tbody>
</table>

#### Solubility in / Miscibility with water

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not miscible or difficult to mix.</td>
<td></td>
</tr>
</tbody>
</table>
Trade name: Transpoxy Hydro Finish 4.70 pack A

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Dangerous reactions: No dangerous reactions known.
- Dangerous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Acute toxicity:
  - LD/LC50 values relevant for classification:
    | 1330-20-7 xylene, mixture of isomers |
    | Oral LD50 | 4300 mg/kg (rat) |
    | Dermal LD50 | 2000 mg/kg (rabbit) |

- Primary irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: Irritating effect.
  - Sensitization: Sensitization possible through skin contact.

- Additional toxicological information:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

12 Ecological information

- General notes:
  - Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
  - Do not allow product to reach ground water, water course or sewage system, even in small quantities.
  - Danger to drinking water if even extremely small quantities leak into the ground.

13 Disposal considerations

- Product:
- Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.
### 14 Transport information

- **Land transport ADR/RID (cross-border)**
  
  - ADR/RID class: 3 Flammable liquids.
  - Danger code (Kemler): 33
  - UN-Number: 1263
  - Packaging group: II
  - Hazard label: 3
  - Description of goods: 1263 PAINT, special provision 640D

- **Maritime transport IMDG:**
  
  - IMDG Class: 3
  - UN Number: 1263
  - Label: 3
  - Packaging group: II
  - EMS Number: F-E,S-E
  - Marine pollutant: No
  - Proper shipping name: PAINT

- **Air transport ICAO-TI and IATA-DGR:**
  
  - ICAO/IATA Class: 3
  - UN/ID Number: 1263
  - Label: 3
  - Packaging group: II
  - Proper shipping name: PAINT
  - UN "Model Regulation": UN1263; PAINT; 3; II

### 15 Regulatory information

- **Labelling according to EU guidelines:**
  
  The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- **Code letter and hazard designation of product:**
  
  Xn Harmful
Hazard-determining components of labelling:
reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number averagemolecular weigh > 700)
xylene, mixture of isomers

Risk phrases:
10 Flammable.
20/21 Harmful by inhalation and in contact with skin.
36/38 Irritating to eyes and skin.
43 May cause sensitisation by skin contact.

Safety phrases:
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

Special labelling of certain preparations:
Contains epoxy constituents. See information supplied by the manufacturer.

16 Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant R-phrases
10 Flammable.
11 Highly flammable.
20 Harmful by inhalation.
20/21 Harmful by inhalation and in contact with skin.
23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
36 Irritating to eyes.
36/37 Irritating to eyes and respiratory system.
36/38 Irritating to eyes and skin.
37/38 Irritating to respiratory system and skin.
38 Irritating to skin.
39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
41 Risk of serious damage to eyes.
43 May cause sensitisation by skin contact.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
65 Harmful: may cause lung damage if swallowed.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises Dangeres par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Reglement international concernent le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GeStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
* Data compared to the previous version altered.