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

- **Product details**
  - **Trade name:** Transpoxy Primer 1.16 pack A
  - **Article number:** 116A
  - **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:**
  - Xi Irritant
  - F Highly flammable

- **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.
  - Has a narcotizing effect.
  - R 11 Highly flammable.
  - R 37/38 Irritating to respiratory system and skin.
  - R 41 Risk of serious damage to eyes.
  - R 43 May cause sensitisation by skin contact.
  - R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - R 67 Vapours may cause drowsiness and dizziness.

- **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.
  - Danger
    - 3.3/1 - Causes serious eye damage.
    - 3.2/2 - Causes skin irritation.
  - Warning
    - 3.4/1 - May cause an allergic skin reaction.
    - 3.8/3 - May cause respiratory irritation. May cause drowsiness or dizziness.

(Contd. on page 2)
Trade name: Transpoxy Primer 1.16 pack A

4.1/3 - Harmful to aquatic life with long lasting effects.

- 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.
  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.
  Avoid release to the environment.
  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.
  Immediately call a POISON CENTER or doctor/physician.
  Call a POISON CENTER or doctor/physician if you feel unwell.
  Specific treatment (see label).
  If skin irritation occurs: Get medical advice/attention.
  If skin irritation or rash occurs: 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 container tightly closed.
  Store in a well-ventilated place. Keep cool.
  Store locked up.

- 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:

| CAS: 25036-25-3 | reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weigh > 700) | 10-25% |
| NLP: 500-033-5 | Xi; R 36/38-43 |
| Warning: 3.2/2, 3.3/2A, 3.4.S/1 |
Trade name: Transpoxy Primer 1.16 pack A

<table>
<thead>
<tr>
<th>CAS: 78-83-1</th>
<th>iso-butanol</th>
<th>10-25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 201-148-0</td>
<td><strong>Xi:</strong> R 10-37/38-41-67</td>
<td><strong>Xi:</strong> R 10-37/38-41-67</td>
</tr>
<tr>
<td><strong>Danger:</strong></td>
<td>3.3/1, 3.3/2</td>
<td><strong>Warning:</strong> 2.6/3; 3.8/3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 1330-20-7</th>
<th>xylene, mixture of isomers</th>
<th>2.5-10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 215-535-7</td>
<td><strong>Xn:</strong> <strong>Xi:</strong> R 10-20/21-38</td>
<td><strong>Xi:</strong> R 10-20/21-38</td>
</tr>
<tr>
<td><strong>Danger:</strong></td>
<td>3.1.D/3, 3.1.I/4, 3.2/2</td>
<td><strong>Warning:</strong> 2.6/3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 108-10-1</th>
<th>4-methylpentan-2-one</th>
<th>2.5-10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 203-550-1</td>
<td><strong>Xn:</strong> <strong>Xi:</strong> F; R 11-20-36/37-66</td>
<td><strong>Xi:</strong> R 11-20-36/37-66</td>
</tr>
<tr>
<td><strong>Danger:</strong></td>
<td>2.6/2</td>
<td><strong>Warning:</strong> 3.1.I/4, 3.3/2A, 3.8/3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 64742-95-6</th>
<th>Solvent naphtha (petroleum), light arom.</th>
<th>2.5-10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 265-199-0</td>
<td><strong>Xn:</strong> <strong>Xi:</strong> N; R 10-37-51/53-65-66-67</td>
<td><strong>Xi:</strong> R 10-37-51/53-65-66-67</td>
</tr>
<tr>
<td><strong>Danger:</strong></td>
<td>3.10/1</td>
<td><strong>Warning:</strong> 2.6/3; 3.8/3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 67-63-0</th>
<th>propan-2-ol</th>
<th>2.5-10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-661-7</td>
<td><strong>Xi:</strong> <strong>F:</strong> R 11-36-67</td>
<td><strong>F:</strong> R 11-36-67</td>
</tr>
<tr>
<td><strong>Danger:</strong></td>
<td>2.6/2</td>
<td><strong>Warning:</strong> 3.3/2A, 3.8/3</td>
</tr>
</tbody>
</table>

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

### 4 First aid measures

- **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. Then 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:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
  Inform respective authorities in case of seepage into water course or sewage system.
  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).
  Ensure adequate ventilation.
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: Store in a cool location.
  · Information about storage in one common storage facility: Not required.
  · Further information about storage conditions:
    Keep container tightly sealed.
    Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection

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

<table>
<thead>
<tr>
<th>Ingredients with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>7727-43-7 barium sulphate, precipitated (25-50%)</td>
</tr>
<tr>
<td>WEL</td>
</tr>
<tr>
<td>*inhalable dust  **respirable dust</td>
</tr>
<tr>
<td>78-83-1 iso-butanol (10-25%)</td>
</tr>
<tr>
<td>WEL</td>
</tr>
<tr>
<td>Long-term value: 154 mg/m³, 50 ppm</td>
</tr>
<tr>
<td>1330-20-7 xylene, mixture of isomers (2.5-10%)</td>
</tr>
<tr>
<td>WEL</td>
</tr>
<tr>
<td>Long-term value: 220 mg/m³, 50 ppm</td>
</tr>
<tr>
<td>Sk; BMGV</td>
</tr>
<tr>
<td>108-10-1 4-methylpentan-2-one (2.5-10%)</td>
</tr>
<tr>
<td>WEL</td>
</tr>
<tr>
<td>Long-term value: 208 mg/m³, 50 ppm</td>
</tr>
<tr>
<td>Sk</td>
</tr>
<tr>
<td>67-63-0 propan-2-ol (2.5-10%)</td>
</tr>
<tr>
<td>WEL</td>
</tr>
<tr>
<td>Long-term value: 999 mg/m³, 400 ppm</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 skin.
    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.

· **Protection of hands:**

  ![Protective gloves]

  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

  ![Tightly sealed goggles]

* **9 Physical and chemical properties**

<table>
<thead>
<tr>
<th>General Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form:</strong></td>
<td>Fluid</td>
</tr>
<tr>
<td><strong>Colour:</strong></td>
<td>According to product specification</td>
</tr>
<tr>
<td><strong>Odour:</strong></td>
<td>Characteristic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boiling point/Boiling range:</strong></td>
<td>108°C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash point:</th>
<th>14°C</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ignition temperature:</th>
<th>390°C</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Self-igniting:</th>
<th>Product is not selfigniting.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Danger of explosion:</th>
<th>Product is not explosive. However, formation of explosive air/vapour mixtures are possible.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Explosion limits:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lower:</strong></td>
<td>1.7 Vol %</td>
</tr>
<tr>
<td><strong>Upper:</strong></td>
<td>12.0 Vol %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vapour pressure at 20°C:</th>
<th>12 hPa</th>
</tr>
</thead>
</table>

| Density at 20°C: | 1.45 g/cm³ |

<table>
<thead>
<tr>
<th>Solubility in / Miscibility with water:</th>
<th>Not miscible or difficult to mix.</th>
</tr>
</thead>
</table>
Trade name: Transpoxy Primer 1.16 pack A

- Viscosity:
  - Dynamic at 20°C: 1500 mPas
- Solvent content:
  - VOC (EC) 496.3 g/l

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)
    - 64742-95-6 Solvent naphtha (petroleum), light arom.
      - Oral LD50 >6800 mg/kg (rat)
      - Dermal LD50 >3400 mg/kg (rabbit)
      - Inhalative LC50/4 h >10.2 mg/l (rat)
- Primary irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: Strong irritant with the danger of severe eye injury.
- 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:
  Irritant

12 Ecological information

- Ecotoxic effects:
  - Remark: Harmful to fish
- General notes:
  Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Danger to drinking water if even small quantities leak into the ground.
  Harmful to aquatic organisms
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: III
  - Hazard label: 3
  - Description of goods: 1263 PAINT, special provision 640H

- Maritime transport IMDG:
  - IMDG Class: 3
  - UN Number: 1263
  - Label: 3
  - Packaging group: III
  - 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: III
  - Proper shipping name: PAINT

- UN "Model Regulation": UN1263; PAINT; 3; III

(Contd. of page 6)
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:

```
Xi Irritant
F Highly flammable
```

- Hazard-determining components of labelling:
reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weigh > 700)

- Risk phrases:
11 Highly flammable.
37/38 Irritating to respiratory system and skin.
41 Risk of serious damage to eyes.
43 May cause sensitisation by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
67 Vapours may cause drowsiness and dizziness.

- Safety phrases:
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
24/25 Avoid contact with skin and eyes.

- 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.
36 Irritating to eyes.
36/37 Irritating to eyes and respiratory system.
36/38 Irritating to eyes and skin.
37 Irritating to respiratory system.
37/38 Irritating to respiratory system and skin.
38 Irritating to skin.
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 Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  RID: Reglement internationale 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
  GefStoffV: 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.