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

- **Product details**
  - **Trade name:** Transvinypox HS 2.06 pack A
  - **Article number:** 206a-5
  - **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.
  - Iskheong@kop.com.my

2 Hazards identification

- **Hazard description:**
  - Xi Irritant
  - N Dangerous for the environment

- **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 36/38** Irritating to eyes and skin.
  - **R 43** May cause sensitisation by skin contact.
  - **R 51/53** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - 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**

  **Warning**
  - 2.6/3 - Flammable liquid and vapour.

  **Warning**
  - 3.2/2 - Causes skin irritation.
  - 3.3/2A - Causes serious eye irritation.
  - 3.4/1 - May cause an allergic skin reaction.

  **Warning**
  - 4.1/2 - Toxic to aquatic life with long lasting effects.

- **Prevention:**
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - Keep container tightly closed.

(Contd. on page 2)
Trade name: Transvinylox HS 2.06 pack A

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.
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 IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (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.
Collect spillage.

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: 25068-38-6</th>
<th>reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)</th>
<th>10-25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>NLP: 500-033-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xi; N; R 36/38-43-51/53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning: 3.2/2, 3.3/2A, 3.4.S/1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1.C/2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 1330-20-7</th>
<th>xylene, mixture of isomers</th>
<th>10-25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 215-535-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xi; R 10-20/21-38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danger: 3.1.D/3, 3.1.I/4, 3.2/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning: 2.6/3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 78-83-1</th>
<th>iso-butanol</th>
<th>2.5-10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 201-148-0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xi; R 10-37/38-41-67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danger: 3.5/1, 3.5/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning: 2.6/3, 3.8/3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 25154-52-3</th>
<th>nonylphenol</th>
<th>≤ 2.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 246-672-0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C; Xi; N; R 22-34-62-50/53-63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danger: 3.1.O/3, 3.2/1F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning: 3.7/2, 4.1.C/1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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. 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: 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.
  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 storeroms 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.
Trade name: Transvinypox HS 2.06 pack A

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

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Substance</th>
<th>WEL Short-term value</th>
<th>WEL Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330-20-7</td>
<td>xylene, mixture of isomers (10-25%)</td>
<td>441 mg/m³, 100 ppm</td>
<td>220 mg/m³, 50 ppm</td>
</tr>
<tr>
<td>78-83-1</td>
<td>iso-butanol (2.5-10%)</td>
<td>231 mg/m³, 75 ppm</td>
<td>154 mg/m³, 50 ppm</td>
</tr>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol (≤ 2.5%)</td>
<td>560 mg/m³, 150 ppm</td>
<td>375 mg/m³, 100 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 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:
  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>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form:</strong> Fluid</td>
</tr>
<tr>
<td><strong>Colour:</strong> According to product specification</td>
</tr>
<tr>
<td><strong>Odour:</strong> Characteristic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling point/Boiling range: 137°C</td>
</tr>
</tbody>
</table>

| Flash point: | 30°C |
| Ignition temperature: | 300°C |
| Self-igniting: | Product is not self-igniting. |
| Danger of explosion: | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |

<table>
<thead>
<tr>
<th>Explosion limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lower:</strong> 1.1 Vol %</td>
</tr>
<tr>
<td><strong>Upper:</strong> 7.0 Vol %</td>
</tr>
</tbody>
</table>

| Vapour pressure at 20°C: | 6.7 hPa |
| Density at 20°C: | 1.49744 g/cm³ |

<table>
<thead>
<tr>
<th>Solubility in / Miscibility with water:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not miscible or difficult to mix.</td>
</tr>
</tbody>
</table>

| Viscosity: |
| Dynamic at 20°C: 2500 mPas |

| Solvent content: |
| VOC (EC) 245.4 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: |

| 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700) |
| Oral LD50 | >2000 mg/kg (rat) |
| Dermal LD50 | >2000 mg/kg (rat) |

| 1330-20-7 xylene, mixture of isomers |
| Oral LD50 | 4300 mg/kg (rat) |
| Dermal LD50 | 2000 mg/kg (rabbit) |
Trade name: Transvinypox HS 2.06 pack A

<table>
<thead>
<tr>
<th>25154-52-3 nonylphenol</th>
<th>Oral LD50 1620 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary irritant effect:</td>
<td></td>
</tr>
<tr>
<td>on the skin: Irritant to skin and mucous membranes.</td>
<td></td>
</tr>
<tr>
<td>on the eye: Irritating effect.</td>
<td></td>
</tr>
<tr>
<td>Sensitization: Sensitization possible through skin contact.</td>
<td></td>
</tr>
<tr>
<td>Additional toxicological information:</td>
<td></td>
</tr>
<tr>
<td>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:</td>
<td></td>
</tr>
<tr>
<td>Irritant</td>
<td></td>
</tr>
</tbody>
</table>

12 Ecological information

- Ecotoxic effects:
- Remark: Toxic for 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.
  Also poisonous for fish and plankton in water bodies.
  Toxic for 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): 90
  - UN-Number: 1263
  - Packaging group: III
  - Hazard label: 9
  - Description of goods: 1263 PAINT, special provision 640E

- Maritime transport IMDG:
  - IMDG Class: -
  - UN Number: 1263
  - Marine pollutant: No
Trade name: Transvinypox HS 2.06 pack A

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; 9; III
Environmental hazards: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID

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
N Dangerous for the environment

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

Risk phrases:
10 Flammable.
36/38 Irritating to eyes and skin.
43 May cause sensitisation by skin contact.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.
Trade name: Transvinypox HS 2.06 pack A

20/21 Harmful by inhalation and in contact with skin.
22 Harmful if swallowed.
34 Causes burns.
36/38 Irritating to eyes and skin.
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.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
62 Possible risk of impaired fertility.
63 Possible risk of harm to the unborn child.
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.