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

· Product details
  · Trade name: Transvinypox HS 2.06 Pack B
  · Article number: 206b-5
  · Application of the substance/preparation: Epoxy curing agent

· 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:
  C Corrosive

· 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 20/22 Harmful by inhalation and if swallowed.
  R 34 Causes burns.
  R 43 May cause sensitisation by skin contact.

· 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
  3.2/1B - Causes severe skin burns and eye damage.
  Warning
  3.1/4 - Harmful if swallowed.
  3.1/4 - Harmful if inhaled.
  3.4/1 - May cause an allergic skin reaction.

· Prevention:
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Do not breathe dust/fume/gas/mist/vapours/spray.
  Avoid breathing dust/fume/gas/mist/vapours/spray.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  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 SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
  IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

(Contd. on page 2)
Trade name: Transvinypox HS 2.06 Pack B

(Contd. of page 1)

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).
Rinse mouth.
If skin irritation or rash occurs: Get medical advice/attention.
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.
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:

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical characterization</th>
<th>Percentage</th>
<th>Danger</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-51-6</td>
<td>Benzyl alcohol</td>
<td>10-25%</td>
<td>Xn; R 20/22-43</td>
</tr>
<tr>
<td>202-859-9</td>
<td></td>
<td></td>
<td>3.1.O/3, 3.1.I/4, 3.4.S/1</td>
</tr>
<tr>
<td>2855-13-2</td>
<td>3-aminomethyl-3,5,5-trimethylcyclohexylamine</td>
<td>10-25%</td>
<td>C, Xn; R 21/22-34-43-52/53</td>
</tr>
<tr>
<td>220-666-8</td>
<td></td>
<td></td>
<td>3.1.O/3, 3.1.D/3, 3.4.S/1; 3.2/1B</td>
</tr>
<tr>
<td>112-24-3</td>
<td>3,6-diazaoctanethylenediamin</td>
<td>2.5-10%</td>
<td>C, Xn; R 21-34-52/53</td>
</tr>
<tr>
<td>203-950-6</td>
<td></td>
<td></td>
<td>3.1.D/3, 3.4.S/1; 3.2/1B</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene, mixture of isomers</td>
<td>2.5-10%</td>
<td>Xn, Xi; R 10-20/21-38</td>
</tr>
<tr>
<td>215-535-7</td>
<td></td>
<td></td>
<td>3.1.D/3, 3.1.I/4, 3.2/2</td>
</tr>
<tr>
<td>109-55-7</td>
<td>3-aminopropyldimethylamine</td>
<td>≤ 2.5%</td>
<td>C, Xn; R 10-22-34-43</td>
</tr>
<tr>
<td>203-680-9</td>
<td></td>
<td></td>
<td>3.1.O/3, 3.4.S/1; 3.2/1B</td>
</tr>
</tbody>
</table>

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

4 First aid measures

· General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

(Contd. on page 3)
5 Fire-fighting measures

- **Suitable extinguishing agents:**
  CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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).
  Use neutralizing agent.
  Dispose contaminated material as waste according to item 13.
  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:** No special measures required.
- **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:**
  | 1330-20-7 xylene, mixture of isomers (2.5-10%) |
  | WEL | Short-term value: 441 mg/m³, 100 ppm |
  | Long-term value: 220 mg/m³, 50 ppm |
  | Sk; BMGV |
- **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:

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 breakthrough 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

- General Information
  Form: Fluid
  Colour: According to product specification
  Odour: Characteristic

- Change in condition
  Boiling point/Boiling range: 205°C

- Flash point: 78°C

- Ignition temperature: 380°C

- Self-igniting: Product is not selfigniting.

- Danger of explosion: Product does not present an explosion hazard.

- Explosion limits:
  Lower: 1.2 Vol %
  Upper: 13.0 Vol %
Trade name: Transvinypox HS 2.06 Pack B

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour pressure at 20°C:</td>
<td>0.1 hPa</td>
</tr>
<tr>
<td>Density at 20°C:</td>
<td>0.98847 g/cm³</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water:</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Dynamic at 20°C:</td>
<td>450 mPas</td>
</tr>
<tr>
<td>Solvent content: VOC (EC)</td>
<td>273.2 g/l</td>
</tr>
</tbody>
</table>

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:
    | 100-51-6 Benzyl alcohol |
    | Oral  | LD50  | 1230 mg/kg (rat) |
    | Dermal| LD50  | 2000 mg/kg (rabbit) |
- Primary irritant effect:
  - on the skin: Caustic effect on skin and mucous membranes.
  - on the eye: Strong caustic 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
  Corrosive
  Irritant
  Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

- 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.
  Must not reach sewage water or drainage ditch undiluted or unneutralized.
  Danger to drinking water if even 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: 8 Corrosive substances.
  - Danger code (Kemler): 80
  - UN-Number: 3066
  - Packaging group: III
  - Hazard label: 8
  - Description of goods: 3066 PAINT RELATED MATERIAL

- **Maritime transport IMDG:**
  - IMDG Class: 8
  - UN Number: 3066
  - Label 8
  - Packaging group: III
  - EMS Number: F-A,S-B
  - Marine pollutant: No
  - Proper shipping name: PAINT RELATED MATERIAL

- **Air transport ICAO-TI and IATA-DGR:**
  - ICAO/IATA Class: 8
  - UN/ID Number: 3066
  - Label 8
  - Packaging group: III
  - Proper shipping name: PAINT RELATED MATERIAL

- **UN "Model Regulation":** UN3066; PAINT RELATED MATERIAL; 8; III
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:

  C Corrosive

- Hazard-determining components of labelling:
  3-aminomethyl-3,5,5-trimethylcyclohexylamine
  3,6-diazaoctanethylenediamin
  3-aminopropyldimethylamine

- Risk phrases:
  20/22 Harmful by inhalation and if swallowed.
  34 Causes burns.
  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).
  26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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.
  20/21 Harmful by inhalation and in contact with skin.
  20/22 Harmful by inhalation and if swallowed.
  21 Harmful in contact with skin.
  21/22 Harmful in contact with skin and if swallowed.
  22 Harmful if swallowed.
  34 Causes burns.
  38 Irritating to skin.
  43 May cause sensitisation by skin contact.
  52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- 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 merchandises 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)
Trade name: Transvinypox HS 2.06 Pack B

LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

* Data compared to the previous version altered.