SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
- Trade name: Transpoxy Tankguard 4.71 Part A
- Article number: 4.71 A

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Application of the substance / the mixture
- Coating material

1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  KOSSAN PAINT (M) SDN. BHD.
  1,Jalan Koporat 1/KU9, Taman Perindustrian Meru, 42200 Kapar, Selangor Darul Ehsan, Malaysia.

Further information obtainable from:
- Product safety department.
  lsheong@kop.com.my

1.4 Emergency telephone number:
- Manufacturer/supplier
  603-33922799

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  GHS08 health hazard
  Repr. 1B  H360Df  May damage the unborn child. Suspected of damaging fertility.

GHS09 environment

Aquatic Chronic 2  H411  Toxic to aquatic life with long lasting effects.

GHS07

Skin Irrit. 2  H315  Causes skin irritation.
Eye Irrit. 2  H319  Causes serious eye irritation.
Skin Sens. 1  H317  May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.

Hazard description:
- T  Toxic
- 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 61  May cause harm to the unborn child.
- 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.

(Contd. on page 2)
Trade name: Transpoxy Tankguard 4.71 Part A

Contains epoxy constituents. May produce an allergic reaction.
Restricted to professional users.

2.2 Label elements

- Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- 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:
  T Toxic
  N Dangerous for the environment

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

- Risk phrases:
  61 May cause harm to the unborn child.
  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:
  53 Avoid exposure - obtain special instructions before use.
  1/2 Keep locked up and out of the reach of children.

- Special labelling of certain preparations:
  Contains epoxy constituents. May produce an allergic reaction.
  Restricted to professional users.

2.3 Other hazards

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

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

<table>
<thead>
<tr>
<th>CAS: 25068-38-6 NLP: 500-033-5</th>
<th>reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ( \leq 700 ))</th>
<th>50-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Xi R36/38;</td>
<td>Xi R43;</td>
</tr>
<tr>
<td>CAS: 84-74-2 EINECS: 201-557-4</td>
<td>dibutyl phthalate</td>
<td>T Repr. Cat. 2, 3 R61;</td>
</tr>
</tbody>
</table>

SVHC

84-74-2 dibutyl phthalate
SECTION 4: First aid measures

4.1 Description of first aid measures
- After inhalation:
  Supply fresh air and be sure to call 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.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture
No further relevant information available.

5.3 Advice for firefighters
- Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Not required.

6.2 Environmental precautions:
- Do not allow product to reach sewage system or any water course.
- Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.

6.4 Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Ensure good ventilation/exhaustion at the workplace.
- Open and handle receptacle with care.
- Prevent formation of aerosols.

7.2 Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
Trade name: Transpoxy Tankguard 4.71 Part A

- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep container tightly sealed.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

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

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Substance</th>
<th>Long-term value: 10* 4** mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>7727-43-7</td>
<td>barium sulphate, natural (10-25%)</td>
<td>*inhalable dust **respirable dust</td>
</tr>
<tr>
<td>84-74-2</td>
<td>dibutyl phthalate (2.5-10%)</td>
<td>WEL Short-term value: 10 mg/m³ Long-term value: 5 mg/m³</td>
</tr>
</tbody>
</table>

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

8.2 Exposure controls

- 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.
  - Store protective clothing separately.
  - 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.
### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>9.1 Information on basic physical and chemical properties</strong></td>
<td></td>
</tr>
<tr>
<td><strong>General Information</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Whitish</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>&gt; 200 °C</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>151 °C</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous)</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Ignition temperature</strong></td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Self-igniting</strong></td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Danger of explosion</strong></td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td><strong>Explosion limits</strong></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Density at 20 °C:</strong></td>
<td>1.42 g/cm³</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with water</strong></td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td><strong>Partition coefficient (n-octanol/water)</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Solvent content</strong></td>
<td></td>
</tr>
<tr>
<td>Organic solvents</td>
<td>1.1 %</td>
</tr>
<tr>
<td>VOC (EC)</td>
<td>1.09 %</td>
</tr>
<tr>
<td>Solids content</td>
<td>99.0 %</td>
</tr>
</tbody>
</table>
**SECTION 10: Stability and reactivity**

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions:** No dangerous reactions known.
- **10.4 Conditions to avoid:** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
  - **LD/LC50 values relevant for classification:**
    - 84-74-2 dibutyl phthalate
      - Oral LD$_{50}$ 8000 mg/kg (rat)
      - Dermal LD$_{50}$ 20000 mg/kg (rabbit)
  - **Primary irritant effect:**
    - on the skin: Irritant to skin and mucous membranes.
    - on the eye: Irritating effect.
    - Sensitisation: Sensitisation 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

**SECTION 12: Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
  - **Remark:** Toxic for fish
- **Additional 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.
    - 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
  - 12.5 Results of PBT and vPvB assessment
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
SECTION 13: Disposal considerations

13.1 Waste treatment methods

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.

SECTION 14: Transport information

14.1 UN-Number
ADR, IMDG, IATA UN1263
ADN Void

14.2 UN proper shipping name
ADR 1263 PAINT, ENVIRONMENTALLY HAZARDOUS
ADN Void
IMDG PAINT, MARINE POLLUTANT
IATA PAINT

14.3 Transport hazard class(es)
ADR

Class Void
Label 9
ADN/R Class: Void

14.4 Packing group
ADR, IMDG, IATA III

14.5 Environmental hazards:
Product contains environmentally hazardous substances: dibutyl phthalate, reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

Marine pollutant: Yes

14.6 Special precautions for user
EMS Number: F-E.S.-E

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

UN "Model Regulation": UN1263, PAINT, ENVIRONMENTALLY HAZARDOUS, 9, III
SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations:

Substances of very high concern (SVHC) according to REACH, Article 57
84-74-2 dibutyl phthalate

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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 phrases:

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H360Df May damage the unborn child. Suspected of damaging fertility.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.
- R36/38 Irritating to eyes and skin.
- R43 May cause sensitisation by skin contact.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R61 May cause harm to the unborn child.
- R62 Possible risk of impaired fertility.

Department issuing MSDS: Product safety department.

Contact: Mr. S.K. Lim

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)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
- Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
- Repr. 1B: Reproductive toxicity, Hazard Category 1B
- Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

* Data compared to the previous version altered.