1 Identification of the hazardous chemical and of the supplier

- Product identifier
- Trade name: Transozinc Epoxy Primer ST 1.50 pack A
- Article number: 150A
- Recommended use of the chemical and restrictions on use
  No further relevant information available.
- Application of the substance/preparation:
  Epoxy coating
  Paint
- Details of the supplier of the safety data sheet
  Manufacturer/supplier:
  Transocean Coatings
  Kossan Paint (M) Sdn. Bhd.
  1, Jalan Koporat 1/KU 9, Taman Perindustrian Meru
  42200 Kapar Selangor, Malaysia
  Phone: +60-3-33922799
  Fax: +60-3-33923799
  Emergency telephone number: Manufacturer/Supplier

2 Hazard identification

- Classification of the substance or mixture
  Flam. Liq. 3 H226 Flammable liquid and vapour.
  Skin Irrit. 2 H315 Causes skin irritation.
  Eye Dam. 1 H318 Causes serious eye damage.
  Skin Sens. 1 H317 May cause allergic skin reaction.
  STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
  Aquatic Acute 1 H400 Very toxic to aquatic life.
  Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

- Label elements
- GHS label elements
  The product is classified and labelled according to the Globally Harmonised System (GHS).
- Hazard pictograms
  ![GHS02](image)
  ![GHS05](image)
  ![GHS07](image)
  ![GHS08](image)
  ![GHS09](image)

- Signal word Danger
- Hazard-determining components of labelling:
  xylene
  iso-butanol
  reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)
  Dichloro dimethylsilane reaction products with silica
- Hazard statements
  Flammable liquid and vapour.
  Causes skin irritation.
  Causes serious eye damage.

(Contd. on page 2)
May cause allergic skin reaction.
May cause damage to organs through prolonged or repeated exposure.
Very toxic to aquatic life with long lasting effects.

**Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces – No smoking.
Use explosion-proof electrical/ventilating/lighting equipment.
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.
Immediately call a POISON CENTER/doctor.
Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards**

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

### 3 Composition and information of the ingredients of the hazardous chemical

**Chemical characterisation: Mixtures**

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

<table>
<thead>
<tr>
<th>Chemical component</th>
<th>Description</th>
<th>Hazard Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-66-6</td>
<td>zinc powder - zinc dust (stabilized)</td>
<td>Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>Flam. Lit. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315</td>
</tr>
<tr>
<td>25068-38-6</td>
<td>reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)</td>
<td>Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317</td>
</tr>
<tr>
<td>25036-25-3</td>
<td>reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weigh &gt; 700)</td>
<td>Skin Sens. 1, H317</td>
</tr>
<tr>
<td>78-83-1</td>
<td>iso-butanol</td>
<td>Flam. Lit. 3, H226; H318; Skin Irrit. 2, H315; STOT SE 3, H335-H336</td>
</tr>
<tr>
<td>64742-95-6</td>
<td>hydrocarbons, C9, aromatics</td>
<td>Flam. Lit. 3, H226; Asp. Haz., H304; Aquatic Chronic 2, H411; STOT SE 3, H335-H336</td>
</tr>
<tr>
<td>68611-44-9</td>
<td>dichloro dimethylsilane reaction products with silica</td>
<td>STOT RE 1, H372</td>
</tr>
<tr>
<td>96-29-7</td>
<td>2-butanone oxime</td>
<td>Carc. 2, H351; Eye Dam. 1, H318; Acute Tox. 4, H312; Skin Sens. 1, H317</td>
</tr>
</tbody>
</table>

**Additional information**: For the wording of the listed hazard phrases refer to section 16.
4 First-aid measures

- **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.
  - **Information for doctor:**
    - Most important symptoms and effects, both acute and delayed
      No further relevant information available.
    - Indication of any immediate medical attention and special treatment needed
      No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
  - Suitable extinguishing agents:
    CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - **Special hazards arising from the substance or mixture**
    No further relevant information available.
  - **Advice for firefighters**
  - **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  Not required.
- **Environmental precautions:**
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Ensure adequate ventilation.
- **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.

7 Handling and storage

- **Handling:**
  - **Precautions for safe handling**
    Ensure good ventilation/exhaustion at the workplace.
    Prevent formation of aerosols.
  - **Information about fire - and explosion protection:**
    No special measures required.
8 Exposure controls and personal protection

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

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

    78-83-1 iso-butanol
    PEL (Malaysia) Long-term value: 152 mg/m³, 50 ppm

  · DNELs

    7440-66-6 zinc powder - zinc dust (stabilized)
    Inhalative long term DNEL 5 mg/m³ (Workers)

    1330-20-7 xylene
    Dermal long term DNEL 108 mg/kg/d (General Population)
    Inhalative long term DNEL 14.8 mg/m³ (General Population)
    180 mg/kg/d (Workers)
    77 mg/m³ (Workers)

    64742-95-6 Hydrocarbons, C9, aromatics
    Oral long term DNEL 11 mg/kg/d (General Population)
    Dermal long term DNEL 11 mg/kg/d (General Population)
    Inhalative long term DNEL 32 mg/m³ (General Population)
    25 mg/kg/d (Workers)
    150 mg/m³ (Workers)

  · PNECs

    1330-20-7 xylene
    PNEC STP 6.58 mg/l (water treatment plant)
    PNEC aqua 327 ug/l (freshwater)
    327 ug/l (marine water)
    PNEC sediment 12.46 mg/kg (freshwater)
    12.46 mg/kg (marine water)
    PNEC soil 2.31 mg/kg (Soil)

- Additional information: The lists valid during the making were used as basis.
- 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.
  Avoid contact with the eyes and skin.
Safety Data Sheet
according to P.U.(A) 310/2013

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- 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

- Information on basic physical and chemical properties
- General Information
- Appearance:
  Form: Fluid
  Colour: According to product specification
  Odour: Characteristic
  Odour threshold: Not determined.
- pH-value: Not determined.

- Change in condition
  Melting point/freezing point: Undetermined.
  Initial boiling point and boiling range: 137 °C

- Flash point: 25 °C
- Flammability (solid, gas): Not applicable.
- Ignition temperature: 500 °C
- Decomposition temperature: Not determined.
Trade name: Transozinc Epoxy Primer ST 1.50 pack A

44.0

· Auto-ignition temperature
  Product is not self-igniting.

· Explosive properties:
  Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:
  Lower: 1,1 Vol %
  Upper: 7,0 Vol %

· Vapour pressure at 20 °C: 6,7 hPa

· Density at 20 °C: 2,35187 g/cm³
  · Relative density: Not determined.
  · Vapour density: Not determined.
  · Evaporation rate: Not determined.

· Solubility in / Miscibility with water:
  Not miscible or difficult to mix.

· Partition coefficient: n-octanol/water
  Not determined.

· Viscosity:
  Dynamic at 20 °C: 4440 mPas
  Kinematic: Not determined.

· Solvent content:
  VOC (EC) 447,7 g/l

· Other information
  No further relevant information available.

10 Stability and reactivity

· Reactivity
  No further relevant information available.

· Chemical stability

· Thermal decomposition / conditions to be avoided:
  No decomposition if used according to specifications.

· Possibility of hazardous reactions
  No dangerous reactions known.

· Conditions to avoid
  No further relevant information available.

· Incompatible materials:
  No further relevant information available.

· Hazardous decomposition products:
  No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity

· LD/LC50 values relevant for classification:

  7440-66-6 zinc powder -zinc dust (stabilized)
  Oral LD50 > 2000 mg/kg (rat)
  Inhalative LC50/4 h (dynamic) 5,4 mg/l (rat)
  1330-20-7 xylene
  Oral LD50 >2000 mg/kg (rat)
**Trade name: Transoxygen Epoxy Primer ST 1.50 pack A**

### Physical Data

- **Liquid density:** 950 kg/m³ (20 °C)
- **Refractive index:** 1.489
- **Specific conductance:** <1 μS/cm

### Toxicological Data

#### LC50/96 hr (static)
- 2.6 mg/l (Rainbow trout (Oncorhynchus mykiss)) (OECS 203 or equivalent)
- 1.5 mg/l (fish)
- 1.5 mg/l (fish)

#### LD50
- >2000 mg/kg (rabbit)
- >20 ml/kg (rat)
- >5000 mg/kg (rat)
- >5000 mg/kg (rat)

#### Inhalative LC50/4 h
- >20 mg/l (rat)
- >6193 mg/l (rat)

#### Dermal LD50
- >2000 mg/kg (rabbit)
- >2000 mg/kg (rabbit)
- >3160 mg/kg (rabbit)

### Ecotoxicological Data

#### EC50 (48 hr)
- 1-10 mg/l (daphnia)
- 1-10 mg/l (Algae)

#### EC50 (72 hr)
- 1-10 mg/l (daphnia)
- 9,4 mg/l (Algae)

### Additional Data

#### Bioaccumulative potential
- No further relevant information available.

#### Persistence and degradability
- No further relevant information available.

### Remark
- Very toxic for fish

### Additional ecological information
- 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. Very toxic for aquatic organisms

- **Results of PBT and vPvB assessment**
  - **PBT**: Not applicable.
  - **vPvB**: Not applicable.
  - **Other adverse effects** No further relevant information available.

### 13 Disposal information

- **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.

### 14 Transportation information

- **UN-Number**
  - ADR, IMDG, IATA
  - UN1263

- **UN proper shipping name**
  - **ADR** 1263 PAINT, ENVIRONMENTALLY HAZARDOUS, special provision 640E
  - **IMDG** PAINT (zinc powder -zinc dust (stabilized), reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)), MARINE POLLUTANT
  - **IATA** PAINT

- **Transport hazard class(es)**
  - **ADR, IMDG**
    - **Class** 3 Flammable liquids.
    - **Label** 3
  - **IATA**
    - **Class** 3 Flammable liquids.
    - **Label** 3
Safety Data Sheet
according to P.U.(A) 310/2013

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Trade name: Transozinc Epoxy Primer ST 1.50 pack A

- **Packing group**
  - ADR, IMDG, IATA: III

- **Environmental hazards:**
  - Product contains environmentally hazardous substances:
  - Marine pollutant:
    - Yes
    - Symbol (fish and tree)
  - Special marking (ADR):
    - Symbol (fish and tree)

- **Special precautions for user**
  - Warning: Flammable liquids.
  - Danger code (Kemler): 30
  - EMS Number: F-E,S-E
  - Stowage Category: A

- **Transport in bulk according to Annex II of Marpol and the IBC Code**
  - Not applicable.

- **Transport/Additional information:**
  - ADR
    - Limited quantities (LQ): 5L
    - Excepted quantities (EQ): Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml
  - IMDG
    - Limited quantities (LQ): 5L
    - Excepted quantities (EQ): Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml
  - UN "Model Regulation": UN 1263 PAINT, SPECIAL PROVISION 640E, 3, III, ENVIRONMENTALLY HAZARDOUS

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - GHS label elements
    - The product is classified and labelled according to the Globally Harmonised System (GHS).
  - Hazard pictograms
    - GHS02
    - GHS05
    - GHS07
    - GHS08
    - GHS09

- **Signal word** Danger
- **Hazard-determining components of labelling:**
  - xylene

(Contd. on page 10)
iso-butanol
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)
Dichloro dimethylsilane reaction products with silica

**Hazard statements**
- Flammable liquid and vapour.
- Causes skin irritation.
- Causes serious eye damage.
- May cause allergic skin reaction.
- May cause damage to organs through prolonged or repeated exposure.
- Very toxic to aquatic life with long lasting effects.

**Precautionary statements**
- Keep away from heat/sparks/open flames/hot surfaces – No smoking.
- Use explosion-proof electrical/ ventilating/lighting equipment.
- 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.
- Immediately call a POISON CENTER/doctor.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

**Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**
  - E1 Hazardous to the Aquatic Environment
  - P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**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.

**Abbreviations and acronyms:**
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- ICAO: International Civil Aviation Organisation
- 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
- 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)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 3: Flammable liquids – Category 3
- Acute Tox. 4: Acute toxicity - oral – Category 4
- Skin Irrit. 2: Skin corrosion or irritation – Category 2
- Eye Dam. 1: Serious eye damage or eye irritation – Category 1
  - : Serious eye damage or eye irritation – Category 1A
Trade name: Transozinc Epoxy Primer ST 1.50 pack A

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage or eye irritation – Category 2</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>Skin sensitization – Category 1</td>
</tr>
<tr>
<td>Carc. 2</td>
<td>Carcinogenicity – Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity (single exposure) – Category 3</td>
</tr>
<tr>
<td>STOT RE 1</td>
<td>Specific target organ toxicity (repeated exposure) – Category 1</td>
</tr>
<tr>
<td>STOT RE 2</td>
<td>Specific target organ toxicity (repeated exposure) – Category 2</td>
</tr>
<tr>
<td>Asp. Haz.</td>
<td>Aspiration hazard – Category 1</td>
</tr>
<tr>
<td>Aquatic Acute 1</td>
<td>Hazardous to the aquatic environment - acute hazard – Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>Hazardous to the aquatic environment - chronic hazard – Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment - chronic hazard – Category 2</td>
</tr>
</tbody>
</table>