1 Identification of the hazardous chemical and of the supplier

- Product identifier
  - Trade name: Transocean Epoxy Primer ST 1.50 pack B
  - Article number: 150B
  - Recommended use of the chemical and restrictions on use
    No further relevant information available.
  - Application of the substance/preparation:
    Epoxy curing agent
    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 Corr. 1B H314 Causes severe skin burns and eye damage.
  - Eye Dam. 1 H318 Causes serious eye damage.
  - Skin Sens. 1 H317 May cause allergic skin reaction.
  - Muta. 2 H341 Suspected of causing genetic defects.

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

- Signal word Danger
  - Hazard-determining components of labelling:
    reaction product based on fatty acids and polyethyleneamine
    xylene
    trimethylhexane-1,6-diamine
    iso-butanol
  - Hazard statements
    Flammable liquid and vapour.
    Causes severe skin burns and eye damage.
    May cause allergic skin reaction.
    Suspected of causing genetic defects.

(Contd. on page 2)
Trade name: Transozinc Epoxy Primer ST 1.50 pack B

Precautionary statements
Keep away from heat/sparks/open flames/hot surfaces – No smoking.
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.
Store locked up.
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.

Composition and information of the ingredients of the hazardous chemical

Chemical characterisation: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>68410-23-1</td>
<td>reaction product based on fatty acids and polyethyleneamine</td>
<td>25-50%</td>
</tr>
<tr>
<td>107-98-2</td>
<td>monopropylene glycol methyl ether</td>
<td>10-25%</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>10-25%</td>
</tr>
<tr>
<td>78-83-1</td>
<td>iso-butanol</td>
<td>10-25%</td>
</tr>
<tr>
<td>25620-58-0</td>
<td>trimethylhexane-1,6-diamine</td>
<td>2,5-10%</td>
</tr>
<tr>
<td>694-83-7</td>
<td>cyclohex-1,2-ylenediamine</td>
<td>2,5-10%</td>
</tr>
<tr>
<td>100-51-6</td>
<td>benzyl alcohol</td>
<td>2,5-10%</td>
</tr>
<tr>
<td>112-24-3</td>
<td>3,6-diazaocanethylenediamin</td>
<td>2,5-10%</td>
</tr>
<tr>
<td>108-95-2</td>
<td>phenylalcohol</td>
<td>&lt; 2,5%</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
  · 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.
  · 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:
    Call for a doctor immediately.
    Drink plenty of water and provide fresh air. Call for a doctor immediately.
  · 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, sand, extinguishing powder. Do not use water.
  · For safety reasons unsuitable extinguishing agents: Water with full jet
  · Special hazards arising from the substance or mixture
    No further relevant information available.
  · Advice for firefighters
  · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
  · Environmental precautions: 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).
    Use neutralising agent.
    Dispose contaminated material as waste according to item 13.
    Ensure adequate ventilation.
    Do not flush with water or aqueous cleansing agents
  · 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.
  - Information about fire - and explosion protection:
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
  - Conditions for safe storage, including any incompatibilities
    - 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.
  - Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

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

- Control parameters

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>PEL (Malaysia)</th>
<th>Long-term value</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-98-2 monopropylene glycol methyl ether</td>
<td>Long-term value: 369 mg/m³, 100 ppm</td>
<td>The lists valid during the making were used as basis.</td>
<td></td>
</tr>
<tr>
<td>78-83-1 iso-butanol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>108-95-2 phenylalcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 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.
  - 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: 108 °C
  - **Flash point:** 24 °C
  - **Flammability (solid, gas):** Not applicable.
  - **Ignition temperature:** 287 °C
  - **Decomposition temperature:** Not determined.
  - **Auto-ignition temperature**
    Product is not selfigniting.
  - **Explosive properties:**
    Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**
  - Lower: 1,1 Vol %
  - Upper: 13,1 Vol %

- **Vapour pressure at 20 °C:** 12 hPa

- **Density at 20 °C:** 0,94767 g/cm³
- **Relative density**
  Not determined.
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:
    | Compound                  | Oral LD50  | Dermal LD50 |
    |---------------------------|------------|-------------|
    | 25620-58-0 trimethylhexane-1,6-diamine | 900 mg/kg (rat) | |
    | 108-95-2 phenylalcohol     | 317 mg/kg (rat) | 850 mg/kg (rabbit) |
  - Primary irritant effect:
    - Skin corrosion or irritation  Caustic effect on skin and mucous membranes.
    - Serious eye damage or eye irritation  Strong caustic effect.
    - Respiratory / skin sensitization  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:
    Harmful
    Corrosive
    Irritant

(Contd. on page 7)
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

- **Toxicity**
  - **Aquatic toxicity:**
    - 25620-58-0 trimethylhexane-1,6-diamine
    - EC 50 (48 hr) 29.5 mg/l (Algae)
    - 31.5 mg/l (daphnia)
  - Persistence and degradability: No further relevant information available.
  - Behaviour in environmental systems: No further relevant information available.
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
  - 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.
      - Must not reach sewage water or drainage ditch undiluted or unneutralised.
      - Danger to drinking water if even small quantities leak into the ground.
    - 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: UN3469
- **UN proper shipping name**
  - ADR: 3469 PAINT, FLAMMABLE, CORROSIVE
  - IMDG, IATA: PAINT, FLAMMABLE, CORROSIVE
Trade name: Transozinc Epoxy Primer ST 1.50 pack B

- Transport hazard class(es)
  - ADR
    - Class 3 Flammable liquids.
    - Label 3+8
  - IMDG
    - Class 3 Flammable liquids.
    - Label 3/8
  - IATA
    - Class 3 Flammable liquids.
    - Label 3 (8)
  - Packing group ADR, IMDG, IATA III

- Environmental hazards:
  - Marine pollutant: No
  - Special precautions for user Warning: Flammable liquids.
    - Danger code (Kemler): 38
    - EMS Number: F-E,S-C
    - Stowage Category A
    - Stowage Code SW2 Clear of living quarters.

- 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
  - Transport category 3
  - Tunnel restriction code D/E
Safety Data Sheet
according to P.U.(A) 310/2013

Trade name: Transozinc Epoxy Primer ST 1.50 pack B

- 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 3469 PAINT, FLAMMABLE, CORROSIVE, 3 (8), III

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](https://example.com/image1.png)  ![GHS05](https://example.com/image2.png)  ![GHS07](https://example.com/image3.png)  ![GHS08](https://example.com/image4.png)

- Signal word Danger
- Hazard-determining components of labelling:
  reaction product based on fatty acids and polyethyleneamine
  xylene
  trimethylhexane-1,6-diamine
  iso-butanol
- Hazard statements
  Flammable liquid and vapour.
  Causes severe skin burns and eye damage.
  May cause allergic skin reaction.
  Suspected of causing genetic defects.
- Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces – No smoking.
  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.
  Store locked up.
  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 P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t

(Contd. on page 10)
Trade name: Transozinc Epoxy Primer ST 1.50 pack B

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)
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. 3: Acute toxicity - oral – Category 3
Acute Tox. 4: Acute toxicity - oral – Category 4
Skin Corr. 1B: Skin corrosion or irritation – Category 1B
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
Eye Irrit. 2: Serious eye damage or eye irritation – Category 2
Skin Sens. 1: Skin sensitization – Category 1
Muta. 2: Germ cell mutagenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - chronic hazard – Category 3