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

1.1 Product identifier
Trade name : EPROPOX HC 60 A/HC 180 A

1.2 Relevant identified uses of the substance or mixture and uses advised against
Use of the Substance/Mixture : Casting Resin

1.3 Details of the supplier of the safety data sheet
Company : Trelleborg Pipe Seals Duisburg GmbH
Dr.-Alfred-Herrhausen-Allee 36
47228 Duisburg
Germany
Telephone : +49 (0) 2065 999-0
Telefax : +49 (0) 2065 999-111
E-mail address : technic.eprs@trelleborg.com

1.4 Emergency telephone number : +49 (0) 2065 999-150

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)
Skin irritation, Category 2 : H315: Causes skin irritation.
Eye irritation, Category 2 : H319: Causes serious eye irritation.
Skin sensitisation, Category 1 : H317: May cause an allergic skin reaction.
Chronic aquatic toxicity, Category 2 : H411: Toxic to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)
Sensitising : R43: May cause sensitisation by skin contact.
Irritant : R36/38: Irritating to eyes and skin.
Dangerous for the environment : R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms:

Signal word: Warning

Hazard statements:
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.
- H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:
- Prevention:
  - P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
  - P273: Avoid release to the environment.
  - P280: Wear protective gloves.
- Response:
  - P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
  - P337 + P313: If eye irritation persists: Get medical advice/attention.

Hazardous components which must be listed on the label:
- reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight \(\leq 700\))
- Epichlorohydrin-formaldehyde-phenol polymer number average molecular weight \# 700

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1\% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature: Modified epoxy resin

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<thead>
<tr>
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<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight (\leq 700))</td>
<td>25068-38-6</td>
<td>Xi; R36/38 R43 N; R51-R53</td>
<td>Eye Irrit. 2; H319 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 2; H411</td>
<td>(\geq 50 - \leq 100)</td>
</tr>
<tr>
<td>Epichlorohydrin-</td>
<td>9003-36-5</td>
<td>Xi; R36/38</td>
<td>Skin Irrit. 2; H315</td>
<td>(\geq 10 - &lt; 12.5)</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: Keep warm and in a quiet place.
Show this safety data sheet to the doctor in attendance.
Take off all contaminated clothing immediately.

If inhaled: Move to fresh air.
Keep patient warm and at rest.
If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.
If breathing is irregular or stopped, administer artificial respiration.

In case of skin contact: Wash off immediately with soap and plenty of water.
Do NOT use solvents or thinners.
If on clothes, remove clothes.
If skin irritation persists, call a physician.

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids,
for at least 15 minutes.
If eye irritation persists, consult a specialist.
If easy to do, remove contact lens, if worn.

If swallowed: Keep at rest.
Do not induce vomiting without medical advice.
Keep respiratory tract clear.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: irritant effects
Redness
sensitising effects

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Foam
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

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Sand
Carbon dioxide (CO2)
Water mist

Unsuitable extinguishing media: Water spray jet

5.2 Special hazards arising from the substance or mixture
Specific hazards during firefighting:
- The pressure in sealed containers can increase under the influence of heat.
- Cool closed containers exposed to fire with water spray.

5.3 Advice for firefighters
Special protective equipment for firefighters:
- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.

Further information:
- In the event of fire and/or explosion do not breathe fumes.
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Immediately evacuate personnel to safe areas.
- Prevent fire extinguishing water from contaminating surface water or the ground water system.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Personal precautions:
- Refer to protective measures listed in sections 7 and 8.
- Evacuate personnel to safe areas.
- Use personal protective equipment.
- Ensure adequate ventilation.
- Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.

6.2 Environmental precautions
Environmental precautions:
- Do not allow uncontrolled discharge of product into the environment.
- Try to prevent the material from entering drains or water courses.
- Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up
Methods for cleaning up:
- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Pick up and transfer to properly labelled containers.

6.4 Reference to other sections
For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Advice on safe handling: Provide sufficient air exchange and/or exhaust in work rooms. Avoid inhalation, ingestion and contact with skin and eyes. Wear personal protective equipment. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Advice on protection against fire and explosion: Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures: Provide adequate ventilation. Wash hands and face before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers.

Advice on common storage: Keep away from oxidising agents, strongly acid or alkaline materials and amines. Keep product and empty container away from heat and sources of ignition. Keep away from food and drink.

Other data: Stable at normal ambient temperature and pressure.

7.3 Specific end use(s)
Specific use(s): Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700): End Use: Workers
Exposure routes: Skin contact
Potential health effects: Acute systemic effects, Long-term systemic effects
Value: 8.33 mg/kg
End Use: Workers
Exposure routes: Inhalation
Potential health effects: Acute systemic effects, Long-term local effects
Value: 12,25 mg/m³
End Use: Consumers

Exposure routes: Skin contact
Potential health effects: Acute systemic effects, Long-term systemic effects
Value: 3,571 mg/kg
End Use: Consumers

Exposure routes: Ingestion
Potential health effects: Acute systemic effects, Long-term systemic effects
Value: 0,75 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

reaction product: bisphenol-A (epichlorhydrin) and epoxy resin (number average molecular weight <= 700)

Fresh water
Value: 0,006 mg/l

Marine water
Value: 0,0006 mg/l

Intermittent releases
Value: 0,018 mg/l

Sewage treatment plant
Value: 10 mg/l

Fresh water sediment
Value: 0,996 mg/kg

Marine sediment
Value: 0,0996 mg/kg

Soil
Value: 0,196 mg/kg

8.2 Exposure controls

Engineering measures
Effective exhaust ventilation system
Effective ventilation in all processing areas

Personal protective equipment

Eye protection
Do not wear contact lenses.
Safety glasses with side-shields conforming to EN166
Ensure that eyewash stations and safety showers are close to the workstation location.

Hand protection
Material
Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

Skin and body protection
Protective suit

Respiratory protection
Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
In the case of vapour formation use a respirator with an approved filter.
Respirator with a vapour filter (EN 141)
Apply technical measures to comply with the occupational exposure limits.
This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation.

Protective measures: Avoid contact with skin.
Wear suitable protective equipment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: liquid
Colour: light yellow
Odour: slight
Odour Threshold: not determined
pH: not determined
Melting point/freezing point: Not applicable
Boiling point/boiling range: > 200 °C
Flash point: 150 °C
Evaporation rate: not determined
Upper explosion limit: Not applicable
Lower explosion limit: Not applicable
Vapour pressure: Not applicable
Relative vapour density: not determined
Density: 1.16 g/cm³ (25 °C)

Bulk density: not determined
Solubility(ies)
Solubility in other solvents: not determined
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: Not applicable
Thermal decomposition: Method: No data available
Viscosity
   Viscosity, dynamic : 9.000 - 12.000 mPa.s (25 °C)
   Viscosity, kinematic : not determined
Explosive properties : Not applicable
Oxidizing properties : Not applicable

9.2 Other information
   Surface tension : not determined
   Sublimation point : Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity
   Stable under recommended storage conditions.

10.2 Chemical stability
   No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions
   Hazardous reactions : Reacts with the following substances:
                          Bases
                          Strong oxidizing agents
                          Avoid amines.

10.4 Conditions to avoid
   Conditions to avoid : No decomposition if used as directed.

10.5 Incompatible materials
   Materials to avoid : Incompatible with oxidizing agents.

10.6 Hazardous decomposition products
   Hazardous decomposition products : This product may release the following:
                                      Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11: Toxicological information

11.1 Information on toxicological effects
   Acute toxicity
   Product:
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

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Acute oral toxicity: Remarks: No data available

**Components:**
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700):

- **Acute oral toxicity:** LD50 (Rat, female): > 2.000 mg/kg
  Method: OECD Test Guideline 420
  GLP: yes

- **Acute dermal toxicity:** LD50 (Rat, male and female): > 2.000 mg/kg
  Method: OECD Test Guideline 402
  GLP: yes

**Skin corrosion/irritation**

**Product:**
Remarks: No data available

**Components:**
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700):

- **Species:** Rabbit
- **Exposure time:** 4 h
- **Method:** OECD Test Guideline 404
- **Result:** Skin irritation
  GLP: yes

**Serious eye damage/eye irritation**

**Product:**
Remarks: No data available

**Respiratory or skin sensitisation**

**Product:**
Remarks: No data available

**Components:**
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700):

- **Test Type:** Mouse Local Lymph Node assay (LLNA)
- **Species:** Mouse
- **Method:** OECD Test Guideline 429
- **Result:** May cause sensitisation by skin contact.
  GLP: yes
Germ cell mutagenicity

Carcinogenicity

Reproductive toxicity

STOT - single exposure

**Product:**
Remarks: Not applicable

STOT - repeated exposure

Repeated dose toxicity

**Product:**
Remarks: No data available

Aspiration toxicity

**Components:**
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700):
No aspiration toxicity classification

Further information

**Product:**
Remarks: No data available

SECTION 12: Ecological information

12.1 Toxicity

**Product:**
Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

**Components:**
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700):
Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 1,7 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,3 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
12.2 Persistence and degradability

**Product:**
Biodegradability: Remarks: No data available

**Components:**
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700):
Biodegradability: Result: Not readily biodegradable.
Method: OECD Test Guideline 301F
GLP: yes

12.3 Bioaccumulative potential

**Product:**
Bioaccumulation: Remarks: No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment

**Product:**
Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

**Product:**
Additional ecological information: Remarks: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

**Product:**
In accordance with local and national regulations.
Container hazardous when empty.
Do not dispose of with domestic refuse.
Do not mix waste streams during collection.

**Contaminated packaging:**
Empty containers should be taken to an approved waste handling site for recycling or disposal.
SECTION 14: Transport information

14.1 UN number

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<tr>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
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<tbody>
<tr>
<td>UN 3082</td>
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14.2 UN proper shipping name

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<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)</td>
<td>Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)</td>
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14.3 Transport hazard class(es)

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14.4 Packing group

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<td>Packing group: III</td>
<td>Packing group: III</td>
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<td>Packing instruction (passenger aircraft): 964</td>
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<td>Hazard Identification Number: 90</td>
<td>Tunnel restriction code: E</td>
<td>Packing group: III</td>
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<tr>
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<tr>
<td>Tunnel restriction code: E</td>
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<td></td>
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<td>EmS Code: F-A, S-F</td>
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14.5 Environmental hazards

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<tr>
<td>Environmentally hazardous: yes</td>
<td>Marine pollutant: yes</td>
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</table>
14.6 Special precautions for user
Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

SECTION 15: Regulatory information

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

- REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII):
  Not applicable

- REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59):
  This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

- REACH - List of substances subject to authorisation (Annex XIV):
  Not applicable


<table>
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<tr>
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</tr>
<tr>
<td>2</td>
<td>500 t</td>
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</table>

9b Dangerous for the environment

15.2 Chemical Safety Assessment
Not applicable

SECTION 16: Other information

Full text of R-Phrases
R36/38: Irritating to eyes and skin.
R43: May cause sensitisation by skin contact.
R51: Toxic to aquatic organisms.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53: May cause long-term adverse effects in the aquatic environment.

Full text of H-Statements
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H411: Toxic to aquatic life with long lasting effects.

Full text of other abbreviations
Aquatic Chronic: Chronic aquatic toxicity
Eye Irrit.: Eye irritation
Skin Irrit.: Skin irritation
Skin Sens.: Skin sensitisation
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.