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

1.1 Product identifier
Trade name : EPROPOX FC 15 B

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

1.3 Details of the supplier of the safety data sheet
Company : Trelleborg Ppe 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.epros@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)
Acute toxicity, Category 4 H302: Harmful if swallowed.
Acute toxicity, Category 4 H312: Harmful in contact with skin.
Skin corrosion, Category 1B H314: Causes severe skin burns and eye damage.
Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.
Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting effects.

Classification (67/548/EC, 1999/45/EC)
Corrosive R34: Causes burns.
Harmful R21/22: Harmful in contact with skin and if swallowed.
Sensitising R43: May cause sensitisation by skin contact.
Dangerous for the environment R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environ-
2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms

Signal word: Danger

Hazard statements:
- H302 + H312: Harmful if swallowed or in contact with skin
- H314: Causes severe skin burns and eye damage.
- H317: May cause an allergic skin reaction.
- H412: Harmful 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/ protective clothing/ eye protection/ face protection.

Response:
- P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310: Immediately call a POISON CENTER or doctor/ physician.

Hazardous components which must be listed on the label:
- Octahydro-4,7-methano-1H-indenedimethylamine
- Phenol, 4,4’-(1-methylene)bis-, polymer with N,N’-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane
- Amines, polyethylenepoly-., triethylenetetramine fraction
- 2-piperazin-1-ylethylamine

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: Heterocyclic and aliphatic amine based mixture

#### Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No. EC-No. Registration number</th>
<th>Classification (67/548/EEC)</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>octahydro-4,7-methano-1H-indenedimethylamine</td>
<td>68889-71-4 272-573-7</td>
<td>Xn; R21/22 C; R34 Xi; R43</td>
<td>Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Skin Sens. 1; H317</td>
<td>&gt;= 30 - &lt; 50</td>
</tr>
<tr>
<td>Phenol, 4,4’-(1-methylethyldene)bis-, polymer with N,N’-bis(2-aminooethyl)-1,2-ethanediamine and (chloromethyl)oxirane</td>
<td>38294-69-8</td>
<td>C; R34 Xn; R21/22 R43 R52 53</td>
<td>Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Chronic 3; H412</td>
<td>&gt;= 20 - &lt; 25</td>
</tr>
<tr>
<td>benzyl alcohol</td>
<td>100-51-6 202-859-9 01-2119492630-38</td>
<td>Xn; R20/22</td>
<td>Acute Tox. 4; H332 Acute Tox. 4; H302</td>
<td>&gt;= 12,5 - &lt; 20</td>
</tr>
<tr>
<td>Amines, polyethylene-poly-, triethylenetetramine fraction</td>
<td>90640-67-8 292-588-2 01-2119487919-13</td>
<td>Xn; R21 C; R34 Xi; R43 R52</td>
<td>Acute Tox. 4; H312 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Chronic 3; H412</td>
<td>&gt;= 10 - &lt; 12,5</td>
</tr>
<tr>
<td>Toluene-4-sulphonic acid, monohydrate</td>
<td>6192-52-5</td>
<td>X; R36/37/38</td>
<td>Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335</td>
<td>&gt;= 5 - &lt; 7</td>
</tr>
<tr>
<td>m-phenylene-bis(methylamine)</td>
<td>1477-55-0 216-032-5 01-2119480150-50</td>
<td>C; R34 Xn; R20/22 R43 R52 53</td>
<td>Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Corr. 1B; H314 Aquatic Chronic 3; H412 Skin Sens. 1; H317</td>
<td>&gt;= 2,5 - &lt; 3</td>
</tr>
<tr>
<td>2-piperazin-1-ylethylamine</td>
<td>140-31-8 205-411-0 01-2119471486-30</td>
<td>C; R34 Xn; R21/22 R43 R52 R53</td>
<td>Acute Tox. 4; H302 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Chronic 3; H412 Acute Tox. 3; H311 1; H318</td>
<td>&gt;= 2,5 - &lt; 3</td>
</tr>
<tr>
<td>Low boiling point naph-</td>
<td>64742-95-6</td>
<td>Xn; R65</td>
<td>STOT SE 3; H336,</td>
<td>&gt;= 0,1 - &lt; 0,25</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

EPROPOX FC 15 B

Version 6.0 [2.0 SDB_GB] Revision Date 31.10.2014 Print Date 03.11.2014

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Show this safety data sheet to the doctor in attendance.
                 Keep warm and in a quiet place.
                 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.
                         Burns must be treated by 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 : Do NOT induce vomiting.
               If a person vomits when lying on his back, place him in the recovery position.
               Call a physician immediately.
               Give small amounts of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : corrosive effects
            Burn

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:
- Carbon dioxide (CO2)
- Foam
- Dry powder
- Water mist

Unsuitable extinguishing media: None known.

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.
Hazardous decomposition products formed under fire conditions.

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.

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. Do not breathe vapours or spray mist. 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. To maintain product quality, do not store in heat or direct sunlight.

Further information on storage conditions: Protect from moisture.

Advice on common storage: Keep away from isocyanates. Do not store near acids. Keep away from oxidizing agents.

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:

**benzyl alcohol**

- **End Use:** Workers
  - Exposure routes: Inhalation
  - Potential health effects: Short-term exposure, Systemic effects
    - Value: 450 mg/m³
  - End Use: Workers
  - Exposure routes: Inhalation
  - Potential health effects: Long-term exposure, Systemic effects
    - Value: 90 mg/m³
  - End Use: Workers
  - Exposure routes: Skin contact
  - Potential health effects: Short-term exposure, Systemic effects
    - Value: 47 mg/kg
  - End Use: Consumers
  - Exposure routes: Ingestion
  - Potential health effects: Short-term exposure, Systemic effects
    - Value: 25 mg/kg
  - End Use: Consumers
  - Exposure routes: Inhalation
  - Potential health effects: Long-term exposure, Systemic effects
    - Value: 9.5 mg/kg
  - End Use: Consumers
  - Exposure routes: Ingestion
  - Potential health effects: Long-term exposure, Systemic effects
    - Value: 5 mg/kg
  - End Use: Consumers
  - Exposure routes: Inhalation
  - Potential health effects: Short-term exposure, Systemic effects
    - Value: 40.55 mg/m³
  - End Use: Consumers
  - Exposure routes: Inhalation
  - Potential health effects: Long-term exposure, Systemic effects
    - Value: 8.11 mg/m³
  - End Use: Consumers
  - Exposure routes: Skin contact
  - Potential health effects: Short-term exposure, Systemic effects
    - Value: 28.5 mg/kg
  - End Use: Consumers
  - Exposure routes: Skin contact
  - Potential health effects: Long-term exposure, Systemic effects
    - Value: 5.7 mg/kg

**Amines, polyethylenopoly-, triethylenetetramine fraction**

- **End Use:** Workers
  - Exposure routes: Skin contact
  - Potential health effects: Long-term systemic effects
    - Value: 0.57 mg/kg
  - End Use: Workers
  - Exposure routes: Inhalation
  - Potential health effects: Long-term systemic effects
    - Value: 1 mg/m³
  - End Use: Consumer use
  - Exposure routes: Skin contact
  - Potential health effects: Long-term systemic effects
    - Value: 0.25 mg/kg
  - End Use: Consumers
  - Exposure routes: Inhalation
2-piperazin-1-ylethylamine

Potential health effects: Long-term systemic effects
Value: 0,29 mg/m3
End Use: Workers
Exposure routes: Skin contact
Potential health effects: Short-term exposure, Systemic effects
Value: 20 mg/kg
End Use: Workers
Exposure routes: Skin contact
Potential health effects: Short-term exposure, Local effects
Value: 0,04 mg/cm2
End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 3,3 mg/kg
End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 3,6 mg/m3
End Use: Workers
Exposure routes: Skin contact
Potential health effects: Short-term exposure, Systemic effects
Value: 10 mg/kg
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Short-term exposure, Systemic effects
Value: 5,3 mg/m3
End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Short-term exposure, Systemic effects
Value: 1,5 mg/kg
End Use: Workers
Exposure routes: Inhalation
Potential health effects: Short-term exposure, Systemic effects
Value: 21,4 mg/m3
End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Short-term exposure, Local effects
Value: 0,02 mg/cm2
End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 1,7 mg/kg
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 0,9 mg/m3
End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Long-term systemic effects
Value: 0,3 mg/kg
End Use: Consumers
Exposure routes: Skin contact
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

EPROPOX FC 15 B

Low boiling point naphtha - unspecified

Potential health effects: Long-term local effects
Value: 0.003 mg/cm²

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long-term exposure, Systemic effects
Value: 25 mg/kg

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term exposure, Systemic effects
Value: 150 mg/m³

End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Long-term exposure, Systemic effects
Value: 11 mg/kg

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long-term exposure, Systemic effects
Value: 32 mg/m³

End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Long-term exposure, Systemic effects
Value: 11 mg/kg

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

benzyl alcohol

Value: Fresh water
Value: 1 mg/l

Value: Marine water
Value: 0.1 mg/l

Value: Fresh water sediment
Value: 5.27 mg/kg

Value: Marine sediment
Value: 0.527 mg/kg

Value: Soil
Value: 0.456 mg/kg

Value: Sewage treatment plant
Value: 39 mg/l

Value: Intermittent releases
Value: 2.3 mg/l

Amines, polyethyleneopoly-, triethylenetetramine fraction

Value: Fresh water
Value: 0.135 mg/l

Value: Fresh water sediment
Value: 2.08 mg/kg

Value: Marine water
Value: 0.0027 mg/l

Value: Marine sediment
Value: 0.123 mg/kg

Value: Soil
Value: 1.67 mg/kg

2-piperazin-1-ylethylamine

Value: Fresh water
Value: 0.058 mg/l

Value: Marine water
Value: 0.0058 mg/l

Value: Intermittent releases
Value: 0.58 mg/l
8.2 Exposure controls

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

Personal protective equipment
Eye protection : Safety glasses with side-shields conforming to EN166
Do not wear contact lenses.
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 respirator when performing operations involving potential exposure to vapour of the product.
The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
Respirator with a vapour filter (EN 141)

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 : purple
Odour : ammoniacal
Odour Threshold : not determined
pH : not determined
Melting point/freezing point : Not applicable
### Boiling point/boiling range
> 150 °C

### Flash point
100 °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
1.07 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 | 1.000 - 1.500 mPa.s (25 °C) |

### Viscosity, kinematic
not determined

### Explosive properties
Not applicable

### Oxidizing properties
Not applicable

### 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.
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

EPROPOX FC 15 B

Version 6.0 [2.0 SDB_GB]  Revision Date 31.10.2014  Print Date 03.11.2014

10.3 Possibility of hazardous reactions
Hazardous reactions : Reacts with the following substances:
                     Acids
                     Strong oxidizing agents

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

10.5 Incompatible materials
Materials to avoid : Strong acids
                     Strong oxidizing agents

10.6 Hazardous decomposition products
Hazardous decomposition products : This product may release the following:
                                   Nitrogen oxides (NOx)
                                   Carbon monoxide
                                   Carbon dioxide (CO2)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:
Acute oral toxicity : Acute toxicity estimate : 666.81 mg/kg
                     Method: Calculation method
Acute inhalation toxicity : Acute toxicity estimate : > 20 mg/l
                           Exposure time: 4 h
                           Test atmosphere: vapour
                           Method: Calculation method
Acute dermal toxicity : Acute toxicity estimate : 1.769 mg/kg
                       Method: Calculation method

Components:
benzyl alcohol:
Acute inhalation toxicity : LC50 (Rat, male and female): > 4.178 mg/l
                           Exposure time: 4 h
                           Test atmosphere: dust/mist
                           Method: OECD Test Guideline 403
                           GLP: yes

Amines, polyethylenepoly-, triethylenetetramine fraction:
Acute oral toxicity : LD50 (Rat, male and female): 1.716 mg/kg
                      Method: OECD Test Guideline 401
                      GLP: yes
Acute dermal toxicity : LD50 (Rabbit, male and female): 1.465 mg/kg
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

EPROPOX FC 15 B

Version 6.0 [2.0 SDB_GB]  Revision Date 31.10.2014  Print Date 03.11.2014

Method: OECD Test Guideline 402
GLP: yes

2-piperazin-1-ylethylamine:
Acute oral toxicity : LD50 (Rat, male): 2.097 mg/kg
Acute dermal toxicity : LD50 (Rabbit, male): 866 mg/kg

Low boiling point naphtha - unspecified:
Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
Exposure time: 4 h
Acute dermal toxicity : LD50 (Rabbit, male and female): > 3.160 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:
Remarks: Acute dermal irritation/corrosion

Components:
benzyl alcohol:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

Amines, polyethylene-, triethylenetetramine fraction:
Species: Rabbit
Method: OECD Test Guideline 404
Result: Corrosive
GLP: yes

2-piperazin-1-ylethylamine:
Species: Rabbit
Result: Corrosive

Low boiling point naphtha - unspecified:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

Serious eye damage/eye irritation

Product:
Remarks: Severe eye irritation

Components:
benzyl alcohol:
Species: Rabbit
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

EPROPOX FC 15 B

Method: OECD Test Guideline 405
Result: Eye irritation
GLP: yes

**Amines, polyethylenepoly-, triethylenetetramine fraction:**
Species: Rabbit
Method: OECD Test Guideline 405
Result: Risk of serious damage to eyes.
GLP: yes

**2-piperazin-1-ylethylamine:**
Species: Rabbit
Result: Risk of serious damage to eyes.

**Low boiling point naphtha - unspecified:**
Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation
GLP: yes

**Respiratory or skin sensitisation**

**Product:**
Remarks: No data available

**Components:**
**Amines, polyethylenepoly-, triethylenetetramine fraction:**
Test Type: Buehler Test
Species: Guinea pig
Method: OECD Test Guideline 406
Result: May cause sensitisation by skin contact.
GLP: yes

**2-piperazin-1-ylethylamine:**
Test Type: Maximisation Test (GPMT)
Exposure routes: Dermal
Species: Guinea pig
Method: OECD Test Guideline 406
Result: May cause sensitisation by skin contact.

**Germ cell mutagenicity**

**Carcinogenicity**

**Reproductive toxicity**

**STOT - single exposure**

**STOT - repeated exposure**

**Repeated dose toxicity**

**Product:**
Remarks: No data available
Aspiration toxicity

Components:
Low boiling point naphtha - unspecified:
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

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:
benzyl alcohol:
Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 230 mg/l
  Exposure time: 48 h
  Method: OECD Test Guideline 202
  GLP: yes

Toxicity to algae: ErC50 (Pseudokirchneriella subcapitata (green algae)): 770 mg/l
  Exposure time: 72 h
  Test Type: static test
  Method: OECD Test Guideline 201
  GLP: yes

Amines, polyethylenepoly-, triethylenetetramine fraction:
Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 31,1 mg/l
  Exposure time: 48 h
  Test Type: static test
  GLP: yes

Toxicity to algae: ErC50 (Selenastrum capricornutum (green algae)): 20 mg/l
  Exposure time: 72 h
  Test Type: semi-static test
  Method: OECD Test Guideline 201
  GLP: yes

2-piperazin-1-ylethylamine:
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 2.190 mg/l
  Exposure time: 96 h
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

EPROPOX FC 15 B

Test Type: static test

Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia magna (Water flea)): 58 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae:
EC50 (Selenastrum capricornutum (green algae)): > 1,000 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

Low boiling point naphtha - unspecified:

Toxicity to fish:
LL50 (Fish): 9,2 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia magna (Water flea)): 3,2 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae:
EC50 (Pseudokirchneriella subcapitata): 2,6 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

12.2 Persistence and degradability

Product:
Biodegradability: Remarks: No data available

Components:
2-piperazin-1-ylethylamine:
Biodegradability: Result: Not readily biodegradable.
Method: OECD Test Guideline 301F
GLP: yes

Low boiling point naphtha - unspecified:
Biodegradability: Result: Readily biodegradable.
Method: OECD Test Guideline 301F

12.3 Bioaccumulative potential

Product:
Bioaccumulation: Remarks: No data available

Components:
2-piperazin-1-ylethyamine:
Partition coefficient: n-
log Pow: -1,48 (20 °C)
12.4 Mobility in soil

**Components:**

- 2-piperazin-1-ylethylamine:
  - Distribution among environmental compartments: 
    - Medium: Soil
    - Koc: 37000

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

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN 2735</td>
<td>UN 2735</td>
<td>UN 2735</td>
</tr>
</tbody>
</table>

14.2 UN proper shipping name

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMINES, LIQUID, CORROSIVE, N.O.S. (octahydro-4,7-methano-1H-indenedimethylamine)</td>
<td>AMINES, LIQUID, CORROSIVE, N.O.S. ()</td>
<td>Amines, liquid, corrosive, n.o.s.</td>
</tr>
</tbody>
</table>
14.3 Transport hazard class(es)

**ADR/RID**: 8
**IMDG**: 8
**IATA**: 8

14.4 Packing group

**ADR/RID**
- Packing group: III
- Classification Code: C7
- Hazard Identification Number: 80
- Labels: 8

**IMDG**
- Packing group: III
- Labels: 8
- EmS Code: F-A, S-B

**IATA**
- Packing instruction (cargo aircraft): 856
- Packing instruction (passenger aircraft): 852
- Packing group: III
- Labels: 8

14.5 Environmental hazards

**ADR/RID**
- Environmentally hazardous: no

**IMDG**
- Marine pollutant: no

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)**

- Low boiling point naphtha - unspecified
- Xylene, mixture of isomers
- 2-methoxy-1-methylethyl acetate
toluene

**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).
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

EPROPOX FC 15 B

Version 6.0 [2.0 SDB_GB]  Revision Date 31.10.2014  Print Date 03.11.2014

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

accident hazards involving dangerous substances

13 Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams)

Quantity 1  2.500 t
Quantity 2  25.000 t

15.2 Chemical Safety Assessment
Not applicable

SECTION 16: Other information

Full text of R-Phrases
R10  Flammable.
R20/22  Harmful by inhalation and if swallowed.
R21  Harmful in contact with skin.
R21/22  Harmful in contact with skin and if swallowed.
R34  Causes burns.
R36/37/38  Irritating to eyes, respiratory system and skin.
R37  Irritating to respiratory system.
R43  May cause sensitisation by skin contact.
R51/53  Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52  Harmful to aquatic organisms.
R52/53  Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53  May cause long-term adverse effects in the aquatic environment.
R65  Harmful: may cause lung damage if swallowed.
R66  Repeated exposure may cause skin dryness or cracking.
R67  Vapours may cause drowsiness and dizziness.

Full text of H-Statements
H226  Flammable liquid and vapour.
H302  Harmful if swallowed.
H304  May be fatal if swallowed and enters airways.
H311  Toxic in contact with skin.
H312  Harmful in contact with skin.
H314  Causes severe skin burns and eye damage.
H315  Causes skin irritation.
H317  May cause an allergic skin reaction.
H318  Causes serious eye damage.
H319  Causes serious eye irritation.
H332  Harmful if inhaled.
H335  May cause respiratory irritation.
H336  May cause drowsiness or dizziness.
H411  Toxic to aquatic life with long lasting effects.
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

EPROPOX FC 15 B

Version 6.0 [2.0 SDB_GB]  Revision Date 31.10.2014  Print Date 03.11.2014

H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Chronic : Chronic aquatic toxicity
Asp. Tox. : Aspiration hazard
Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
Skin Corr. : Skin corrosion
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation
STOT SE : Specific target organ toxicity - single exposure

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.