SAFETY DATA SHEET


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

1.1 Product identifier

Product name: ECOCOOL R - FERROSTAR

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Coolant/ Cutting solution
Uses advised against: No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier: FUCHS LUBRICANTS (UK) PLC.
New Century Street
Hanley
Stoke-on-Trent, Staffordshire, ST1 5HU
UK

Telephone: +44 (0) 1782 203700

Contact Person: Product Safety department
Telephone: +44 (0) 1782 203700
E-mail: product.safety@fuchs-oil.com

1.4 Emergency telephone number:
UK NHS: Dial 111. Ireland NPIS: Dial +353 1 8092566.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified and labelled as hazardous according to regulation (EU) 1272/2008 (CLP).

Classification according to Regulation (EC) No 1272/2008 as amended.

Health Hazards
Skin corrosion: Category 1B H314: Causes severe skin burns and eye damage.
Serious eye damage: Category 1 H318: Causes serious eye damage.

Environmental Hazards
Chronic hazards to the aquatic environment: Category 3 H412: Harmful to aquatic life with long lasting effects.

Hazard summary
Physical Hazards: No data available.

2.2 Label Elements
**Product name:** ECOCOOL R - FERROSTAR

**Contains:**
- prim. Alkanol amine
- alkanolamine

**Signal Words:** Danger

**Hazard Statement(s):**
- H314: Causes severe skin burns and eye damage.
- H412: Harmful to aquatic life with long lasting effects.

**Precautionary Statement**

**Prevention:**
- 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): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P310: Immediately call a POISON CENTER/doctor.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Disposal:**
- P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**2.3 Other hazards:**
By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8) are kept. The product may not be released into the environment without control.

**SECTION 3: Composition/information on ingredients**

**3.2 Mixtures**

**General information:** Mixture of mineral base oil, anionic and nonionic agents and corrosion preventing additives in combination with stabilizers based on glycol-fatty alcohols. This product is applied only as solution or emulsion in water.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Identifier</th>
<th>Concentration *</th>
<th>REACH Registration No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>base oil, paraffinic</td>
<td>EINECS: 265-159-2</td>
<td>10,00 - &lt;20,00%</td>
<td>01-2119480132-48</td>
<td></td>
</tr>
<tr>
<td>prim. Alkanol amine</td>
<td>EINECS: 213-195-4</td>
<td>3,00 - &lt;5,00%</td>
<td>01-2119520701-52</td>
<td></td>
</tr>
<tr>
<td>prim. alkanolamine, ionic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>equilibrium with acids</td>
<td>(* )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tert. alkanolamine, ionic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>equilibrium with acids</td>
<td>(*)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic polysulphide</td>
<td>EINECS: 270-335-7</td>
<td>1,00 - &lt;5,00%</td>
<td>01-2119540516-41</td>
<td></td>
</tr>
</tbody>
</table>
Product name: ECOCOOL R - FERROSTAR

Fatty alcohol, ethoxylated EC: 500-236-9 2.50 - <5.00%
alkanolamine EINECS: 202-488-2 1.00 - <3.00%
Monoethanol amine EINECS: 205-483-3 1.00 - <3.00% 01-211948655-28
Boric acid EINECS: 233-139-2 0.10 - <5.40% 01-2119486683-25 **

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
(*) Neutralisation product: Equilibrium of Ionic Pairs in aqueous solution according to REACH Annex V, 4.

Classification

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Identifier</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>base oil, paraffinic</td>
<td>EINECS: 265-159-2</td>
<td>Asp. Tox. 1;H304</td>
</tr>
<tr>
<td>prim. Alkanol amine</td>
<td>EINECS: 213-195-4</td>
<td>Skin Corr. 1B;H314</td>
</tr>
<tr>
<td>prim. alkanolamine, ionic equilibrium with acids</td>
<td>Neutralisation product (*)</td>
<td>Eye Irrit. 2;H319, Skin Irrit. 2;H315</td>
</tr>
<tr>
<td>tert. alkanolamine, ionic equilibrium with acids</td>
<td>Neutralisation product (*)</td>
<td>Acute Tox. 4;H302, Eye Irrit. 2;H319</td>
</tr>
<tr>
<td>Organic polysulphide</td>
<td>EINECS: 270-335-7</td>
<td>Aquatic Chronic 4;H413</td>
</tr>
<tr>
<td>Fatty alcohol, ethoxylated</td>
<td>EC: 500-236-9</td>
<td>Skin Irr. 2;H315, Aquatic Chronic 2;H411; M-Factor (aquatic chronic): 1</td>
</tr>
<tr>
<td>alkanolamine</td>
<td>EINECS: 202-488-2</td>
<td>Skin Corr. 1B;H314, Eye Dam. 1;H318, Aquatic Acute 1;H400, Acute Tox. 4;H302</td>
</tr>
<tr>
<td>Monoethanol amine</td>
<td>EINECS: 205-483-3</td>
<td>Skin Corr. 1B;H314, Eye Dam. 1;H318, STOT SE 3;H335, Acute Tox. 4;H302, Acute Tox. 4;H312, Acute Tox. 4;H332, Aquatic Chronic 3;H412</td>
</tr>
<tr>
<td>Boric acid</td>
<td>EINECS: 233-139-2</td>
<td>Repr. 1B;H360Df</td>
</tr>
</tbody>
</table>


For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

General: Instantly remove any clothing soiled by the product.

4.1 Description of first aid measures

Inhalation: If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Supply fresh air; consult doctor in case of symptoms.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Destroy or thoroughly clean contaminated shoes. Get medical attention.

Ingestion: Rinse mouth. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center. Seek medical attention.
Product name: ECOCOOL R - FERROSTAR

4.2 Most important symptoms and effects, both acute and delayed:
Risk of serious damage to eyes. Causes burns.

4.3 Indication of any immediate medical attention and special treatment needed
Hand over this safety data sheet to the physician with the special comment "watermiscible cutting oil". Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media:
- CO2, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant added.

Unsuitable extinguishing media:
- Water with a full water jet.

5.2 Special hazards arising from the substance or mixture:
During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters
Special fire fighting procedures:
- Move container from fire area if it can be done without risk. Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter drains.

Special protective equipment for fire-fighters:
- Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:
Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. In case of spills, beware of slippery floors and surfaces.

6.2 Environmental Precautions:
Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent from spreading (e.g. by binding or oil barriers). Environmental manager must be informed of all major spillages. Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acidbinders, universal binders, sawdust). Dispose of the material collected according to regulations. Stop the flow of material, if this is without risk.

6.4 Reference to other sections:
See Section 8 of the SDS for Personal Protective Equipment. See Section 7 for information on safe handling. See Section 13 for information on disposal.

Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.
SECTION 7: Handling and storage:

7.1 Precautions for safe handling:
- Prevent formation of aerosols. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products. Observe good industrial hygiene practices. Provide adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities:
- Local regulations concerning handling and storage of waterpolluting products have to be followed. Store above freezing.

7.3 Specific end use(s):
- not applicable

Storage Class:
- 10-13, combustible / non-combustible liquids and solids

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoethanol amine</td>
<td>TWA</td>
<td>1 ppm</td>
<td>2.5 mg/m³</td>
</tr>
<tr>
<td>Monoethanol amine</td>
<td>STEL</td>
<td>3 ppm</td>
<td>7.6 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

| Appropriate engineering controls: | Provide adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |

Individual protection measures, such as personal protective equipment

General information:
- Wash hands before breaks and after work. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to in handling the chemicals or the mineral oil products.

Eye/face protection:
- Safety glasses (EN 166) recommended during refilling. Avoid contact with eyes. Wear closed protection glasses.
Product name: ECOCOOL R - FERROSTAR

Skin protection
Hand Protection: Material: Nitrile butyl rubber (NBR).
Min. Breakthrough time: \(\geq 480\) min
Recommended thickness of the material: \(\geq 0.38\) mm

Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin protection. Protective gloves, where permitted in acc. to safety directions. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Other: Do not carry cleaning cloths impregnated with the product in trouser pockets. Wear suitable protective clothing.

Respiratory Protection: Ensure good ventilation/exhaustion at the workplace. Avoid breathing vapour/ aerosol.

Thermal hazards: Not known.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state:</td>
<td>liquid</td>
</tr>
<tr>
<td>Form:</td>
<td>liquid</td>
</tr>
<tr>
<td>Color:</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odor:</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>Not applicable for mixtures</td>
</tr>
<tr>
<td>pH:</td>
<td>9.7 (50 g/l, 20 °C)</td>
</tr>
<tr>
<td>Freezing point:</td>
<td>Not applicable for mixtures</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>not applicable</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Not applicable for mixtures</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Value not relevant for classification</td>
</tr>
<tr>
<td>Flammability Limit - Upper (%)--:</td>
<td>Not applicable for mixtures</td>
</tr>
<tr>
<td>Flammability Limit - Lower (%)--:</td>
<td>Not applicable for mixtures</td>
</tr>
<tr>
<td>Vapor pressure:</td>
<td>Not applicable for mixtures</td>
</tr>
<tr>
<td>Vapor density (air=1):</td>
<td>Not applicable for mixtures</td>
</tr>
<tr>
<td>Density:</td>
<td>0.97 g/ml (15,00 °C)</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Soluble</td>
</tr>
<tr>
<td>Solubility (other):</td>
<td>No data available.</td>
</tr>
</tbody>
</table>
**Product name:** ECOCOOL R - FERROSTAR

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not applicable for mixtures</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Value not relevant for classification</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Value not relevant for classification</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>71 mm²/s (40 °C)</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Value not relevant for classification</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Value not relevant for classification</td>
</tr>
<tr>
<td>9.2 Other information</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

**SECTION 10: Stability and reactivity**

10.1 Reactivity: Stable under normal use conditions.
10.2 Chemical Stability: Stable under normal use conditions.
10.3 Possibility of hazardous reactions: Stable under normal use conditions.
10.4 Conditions to avoid: Stable under normal use conditions.
10.6 Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

**SECTION 11: Toxicological information**

**Information on likely routes of exposure**

- **Inhalation:** No data available.
- **Ingestion:** No data available.
- **Skin Contact:** Causes severe skin burns.
- **Eye contact:** Causes serious eye damage.

11.1 Information on toxicological effects

**Acute toxicity**

- **Oral**
  - **Product:** ATEmix: 4.428 mg/kg
**Product name:** ECOCOOL R - FERROSTAR

### Specified substance(s)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Species</th>
<th>LD 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base oil, paraffinic</td>
<td>Rat</td>
<td>$&gt; 5.000$ mg/kg</td>
</tr>
<tr>
<td>Prim. Alkanol amine</td>
<td>Rat, Female, Male</td>
<td>$3.400$ mg/kg</td>
</tr>
<tr>
<td>Prim. alkanolamine, ionic equilibrium with acids</td>
<td>Rat</td>
<td>$3.400$ mg/kg</td>
</tr>
<tr>
<td>Tert. alkanolamine, ionic equilibrium with acids</td>
<td>Rat</td>
<td>$&gt; 200 - 2.000$ mg/kg (OECD 401)</td>
</tr>
<tr>
<td>Fatty alcohol, ethoxylated</td>
<td>Rat</td>
<td>$&gt; 5.001$ mg/kg</td>
</tr>
<tr>
<td>Alkanolamine</td>
<td>Mouse</td>
<td>$2.300$ mg/kg</td>
</tr>
<tr>
<td>Monoethanol amine</td>
<td>Rat</td>
<td>$2.504$ mg/kg (OECD 402)</td>
</tr>
<tr>
<td>Boric acid</td>
<td>Rat, Male</td>
<td>$3.450$ mg/kg (OECD 401)</td>
</tr>
</tbody>
</table>

### Dermal

**Product:** ATEmix: $110.000$ mg/kg

<table>
<thead>
<tr>
<th>Substance</th>
<th>Species</th>
<th>LD 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base oil, paraffinic</td>
<td>Rabbit</td>
<td>$&gt; 5.000$ mg/kg</td>
</tr>
<tr>
<td>Prim. Alkanol amine</td>
<td>Rabbit, Female, Male</td>
<td>$&gt; 3.000$ mg/kg</td>
</tr>
<tr>
<td>Prim. alkanolamine, ionic equilibrium with acids</td>
<td>Rabbit</td>
<td>$&gt; 3.000$ mg/kg</td>
</tr>
<tr>
<td>Monoethanol amine</td>
<td>Rabbit</td>
<td>$2.504$ mg/kg (OECD 402)</td>
</tr>
<tr>
<td>Boric acid</td>
<td>Rabbit, Male</td>
<td>$&gt; 2.001$ mg/kg</td>
</tr>
</tbody>
</table>

### Inhalation

**Product:** ATEmix: $1.100$ mg/l

<table>
<thead>
<tr>
<th>Substance</th>
<th>Species</th>
<th>LC 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base oil, paraffinic</td>
<td>Rat</td>
<td>$&gt; 5$ mg/l</td>
</tr>
<tr>
<td>Prim. Alkanol amine</td>
<td>Rat, Female, Male</td>
<td>$&gt; 8.7$ mg/l</td>
</tr>
<tr>
<td>Boric acid</td>
<td>Rat, Female, Male</td>
<td>$&gt; 2.12$ mg/l (OECD 403)</td>
</tr>
</tbody>
</table>

### Skin Corrosion/Irritation

**Product:** Based on available data, the classification criteria are met.

<table>
<thead>
<tr>
<th>Substance</th>
<th>OECD 404 (Rabbit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prim. Alkanol amine</td>
<td>Corrosive.</td>
</tr>
<tr>
<td>Monoethanol amine</td>
<td>Corrosive.</td>
</tr>
</tbody>
</table>
Product name: ECOCOOL R - FERROSTAR

Serious Eye Damage/Eye Irritation:
Product: Based on available data, the classification criteria are met.
Specified substance(s)
Monoethanol amine Corrosive to skin and eyes.

Respiratory or Skin Sensitization:
Product: Skin sensitizer: Based on available data, the classification criteria are not met.
Respiratory sensitizer: Based on available data, the classification criteria are not met.
Specified substance(s)
prim. Alkanol amine No sensitizing effect (guinea pig); OECD 406
Monoethanol amine, OECD 406-1 (Guinea Pig) Not a skin sensitizer.
Boric acid No sensitizing effect (guinea pig); OECD 406

Germ Cell Mutagenicity
Product: Based on available data, the classification criteria are not met.

Carcinogenicity
Product: Based on available data, the classification criteria are not met.

Reproductive toxicity
Product: Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure
Product: Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure
Product: Based on available data, the classification criteria are not met.

Aspiration Hazard
Product: Based on available data, the classification criteria are not met.

Other Adverse Effects: No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity
Product: Based on available data, the classification criteria are not met.

Fish
Specified substance(s)
base oil, paraffinic LC 50 (Fish, 96 h): > 101 mg/l
prim. Alkanol amine LC 50 (Fish, 96 h): 460 mg/l
Product name: ECOCOOL R - FERROSTAR

prim. alkanolamine, ionic equilibrium with acids
LC 50 (Fish, 96 h): 460 mg/l

tert. alkanolamine, ionic equilibrium with acids
LC 50 (Fish, 96 h): 22 - 50 mg/l (OECD 203)

Monoethanol amine
LC 50 (Fish, 96 h): 125 mg/l

Boric acid
LC 50 (Fish, 96 h): 456 mg/l

Aquatic Invertebrates
Specified substance(s)
prim. Alkanol amine
EC 50 (Water Flea, 48 h): 189 mg/l

prim. alkanolamine, ionic equilibrium with acids
EC 50 (Water Flea, 48 h): 189 mg/l

tert. alkanolamine, ionic equilibrium with acids
EC 50 (Water Flea, 48 h): 19,1 mg/l (OECD 202)

Monoethanol amine
EC 50 (Water Flea, 48 h): 65 mg/l

Boric acid
EC 50 (Water Flea, 48 h): 133 mg/l

Chronic Toxicity
Product: Based on available data, the classification criteria are met.

Fish
Specified substance(s)
Monoethanol amine
NOEC (Fish, 30 d): 1,2 mg/l

Aquatic Invertebrates
Specified substance(s)
Monoethanol amine
NOEC (Water Flea, 21 d): 0,85 mg/l (OECD 211)

Toxicity to Aquatic Plants
Specified substance(s)
prim. Alkanol amine
EC 50 (Alga, 72 h): 202 mg/l

prim. alkanolamine, ionic equilibrium with acids
EC 50 (Alga, 72 h): 202 mg/l

tert. alkanolamine, ionic equilibrium with acids
EC 50 (Alga, 72 h): 1,35 mg/l (OECD 201)

Fatty alcohol, ethoxylated
EC 50 (Alga, 72 h): > 10 - 100 mg/l (OECD 201)

Monoethanol amine
EC 50 (Alga, 72 h): 22 mg/l

Boric acid
EC 50 (Alga, 72 h): 229 mg/l

12.2 Persistence and Degradability

Biodegradation
Product: Not applicable for mixtures
**Product name:** ECOCOOL R - FERROSTAR

**Specified substance(s)**
- **prim. Alkanol amine:** 84 % (28 d, OECD 302B) Readily biodegradable
- **Fatty alcohol, ethoxylated:** Readily biodegradable
- **Monoethanol amine:** > 90 % (21 d, OECD 301A) The product is easily biodegradable.

12.3 Bioaccumulative Potential
- **Product:** Not applicable for mixtures

12.4 Mobility in Soil:
- **Product:** Not applicable for mixtures

12.5 Results of PBT and vPvB assessment:
The product does not contain any substances fulfilling the PBT/vPvB criteria.

12.6 Other Adverse Effects:
- **Water Hazard Class (WGK):**
  - **WGK 1:** slightly water-endangering.

**SECTION 13: Disposal considerations**

13.1 Waste treatment methods
- **General information:**
  - Dispose in accordance with all applicable regulations.
- **Disposal methods:**
  - Discharge, treatment, or disposal may be subject to national, state, or local laws.

**European Waste Codes**
- 07 01 04*: other organic solvents, washing liquids and mother liquors

**SECTION 14: Transport information**

**ADR/RID**
- **14.1 UN Number:** UN 1760
- **14.2 UN Proper Shipping Name:** CORROSIVE LIQUID, N.O.S.(2-(2-aminoethoxy)ethanol)
- **14.3 Transport Hazard Class(es)**
  - **Class:** 8
  - **Label(s):** 8
  - **Hazard No. (ADR):** 80
  - **Tunnel restriction code:** (E)
- **14.4 Packing Group:** III
- **14.5 Environmental hazards:** –
- **14.6 Special precautions for user:** –
**Product name:** ECOCOOL R - FERROSTAR

**ADN**
- **14.1 UN Number:**
- **14.2 UN Proper Shipping Name:** CORROSIVE LIQUID, N.O.S. (2-(2-aminoethoxy)ethanol)
- **14.3 Transport Hazard Class(es):**
  - Class: 8
  - Label(s): 8
- **14.3 Packing Group:** III
- **14.5 Environmental hazards:** –
- **14.6 Special precautions for user:** –

**IMDG**
- **14.1 UN Number:**
- **14.2 UN Proper Shipping Name:** CORROSIVE LIQUID, N.O.S. (2-(2-aminoethoxy)ethanol)
- **14.3 Transport Hazard Class(es):**
  - Class: 8
  - Label(s): 8
  - EmS No.: F-A, S-B
- **14.3 Packing Group:** III
- **14.5 Environmental hazards:** –
- **14.6 Special precautions for user:** –

**IATA**
- **14.1 UN Number:**
- **14.2 Proper Shipping Name:** Corrosive liquid, n.o.s. (2-(2-aminoethoxy)ethanol)
- **14.3 Transport Hazard Class(es):**
  - Class: 8
  - Label(s): 8
- **14.4 Packing Group:** III
- **14.5 Environmental hazards:** –
- **14.6 Special precautions for user:** –

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

**SECTION 15: Regulatory information**

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

**EU Regulations**
- **Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer:** none
- **Regulation (EC) No. 850/2004 on persistent organic pollutants:** none

**15.2 Chemical safety assessment:**
No Chemical Safety Assessment has been carried out.

**SECTION 16: Other information**

**Revision Information:** Vertical lines in the margin indicate an amendment.
Product name: ECOCOOL R - FERROSTAR

**Wording of the H-statements in section 2 and 3**

- **H302** Harmful if swallowed.
- **H304** May be fatal if swallowed and enters airways.
- **H312** Harmful in contact with skin.
- **H314** Causes severe skin burns and eye damage.
- **H315** Causes skin irritation.
- **H318** Causes serious eye damage.
- **H319** Causes serious eye irritation.
- **H322** Harmful if inhaled.
- **H335** May cause respiratory 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.
- **H412** Harmful to aquatic life with long lasting effects.
- **H413** May cause long lasting harmful effects to aquatic life.

**Other information:**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies. The classification results from the Conventional Method mentioned in regulation EU 1272/2008 (CLP).

**Revision Date:**

01.09.2016

**Disclaimer:**

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