SAFETY DATA SHEET

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

1.1 Product identifier
Product name: MAINTAIN FRICOFIN ESK

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Antifreeze/coolant
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: 01782 203700

Contact Person: Product Safety department
Telephone: 01782 203700
E-mail: product.safety@fuchs-oil.com

1.4 Emergency telephone number: 01782 203700

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
Specific Target Organ Toxicity - Repeated Exposure Category 2 H373: May cause damage to organs through prolonged or repeated exposure.

Acute toxicity (Oral) Category 4 H302: Harmful if swallowed.

Hazard summary
Physical Hazards: No data available.

2.2 Label Elements
Product name: MAINTAIN FRICOFIN ESK

Contains: Ethandiol

Signal Words: Warning

Hazard Statement(s): H373: May cause damage to organs through prolonged or repeated exposure.
H302: Harmful if swallowed.

Precautionary Statement

Prevention:
P260: Do not breathe dust/mist/vapors/spray.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.

Response:
P301+P312: IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
P330: Rinse mouth.

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 the substances listed below with harmless additions.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Concentration *</th>
<th>Identifier</th>
<th>REACH Registration No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethandiol</td>
<td>&gt;=50.00 - &lt;99.00%</td>
<td>203-473-3</td>
<td>01-2119456816-28</td>
<td></td>
</tr>
<tr>
<td>sodium borate</td>
<td>&gt;=1.00 - &lt;2.40%</td>
<td>215-540-4</td>
<td>01-2119490790-32</td>
<td>**</td>
</tr>
</tbody>
</table>

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.
Product name: MAINTAIN FRICOFIN ESK

Classification

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethandiol</td>
<td>CLP: Acute Tox. 4; H302, STOT RE 2; H373</td>
</tr>
<tr>
<td>sodium borate</td>
<td>CLP: Repr. 1B; H360FD, Eye Irrit. 2; H319</td>
</tr>
</tbody>
</table>


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

SECTION 4: First aid measures

General: Change clothes and shoes contaminated or soaked by the product. Never put rags contaminated by the product into clothing pockets.

4.1 Description of first aid measures

Inhalation: Supply fresh air; consult doctor in case of symptoms.

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids.

Skin Contact: Wash with soap and water. The product is not skin irritating.

Ingestion: Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: No data available.

Treatment: 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: No data available.
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: In case of spills, beware of slippery floors and surfaces.

6.2 Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Prevent from spreading (e.g. by binding or oil barriers).

6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acidbinders, universal binders, sawdust).

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: Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products.

7.2 Conditions for safe storage, including any incompatibilities: Local regulations concerning handling and storage of waterpolluting products have to be followed. Prevent formation of aerosols.

7.3 Specific end use(s): not applicable

Storage Class: 10, Combustible liquids

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

8.2 Exposure controls

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. 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.

**Skin protection**

**Hand Protection:** Nitrile butyl rubber (NBR). 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 trough 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:** Seek advice from local supervisor. Ensure good ventilation/exhaustion at the workplace. Avoid breathing vapour/ aerosol.

**Thermal hazards:** No data available.

**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><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>liquid</td>
</tr>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Blue</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH</td>
<td>7.0</td>
</tr>
<tr>
<td>Freezing point</td>
<td>-12 °C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>197 °C</td>
</tr>
<tr>
<td>Flash Point</td>
<td>120 °C</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available.</td>
</tr>
</tbody>
</table>
Product name: MAINTAIN FRICOFIN ESK

Flammability Limit - Upper (%)--: No data available.
Flammability Limit - Lower (%)--: No data available.
Vapor pressure: No data available.
Vapor density (air=1): No data available.
Density: 1.13 g/cm³ (20 °C)
Solubility(ies)
   Solubility in Water: Soluble
   Solubility (other): No data available.
Partition coefficient (n-octanol/water): No data available.
Autoignition Temperature: No data available.
Decomposition Temperature: No data available.
Kinematic viscosity: 21 mm²/s (20 °C)
Explosive properties: No data available.
Oxidizing properties: No data available.
9.2 Other information No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity: Stable under normal temperature conditions and recommended use.
10.2 Chemical Stability: No data available.
10.3 Possibility of Hazardous Reactions: None under normal conditions.
10.4 Conditions to Avoid: Avoid heat or contamination.
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: Harmful if swallowed.
   Skin Contact: No data available.
   Eye contact: No data available.
11.1 Information on toxicological effects

Acute toxicity

Oral
Product: LD 50 (Rat): 7.712 mg/kg
Specified substance(s)
- Ethandiol: No data available.
- sodium borate: No data available.

Dermal
Product: LD 50 (Mouse): > 3.500 mg/kg
Specified substance(s)
- Ethandiol: No data available.
- sodium borate: No data available.

Inhalation
Product: No data available.
Specified substance(s)
- Ethandiol: No data available.
- sodium borate: No data available.

Repeated dose toxicity
Product: No data available.
Specified substance(s)
- Ethandiol: No data available.
- sodium borate: No data available.

Skin Corrosion/Irritation:
Product: No data available.
Specified substance(s)
- Ethandiol: No data available.
- sodium borate: No data available.

Serious Eye Damage/Eye Irritation:
Product: No data available.
Specified substance(s)
- Ethandiol: No data available.
- sodium borate: No data available.

Respiratory or Skin Sensitization:
Product: No data available.
Specified substance(s)
- Ethandiol: No data available.
- sodium borate: No data available.
Germ Cell Mutagenicity

**In vitro**
**Product:** No data available.

**Specified substance(s)**
- Ethandiol: No data available.
- sodium borate: No data available.

**In vivo**
**Product:** No data available.

**Specified substance(s)**
- Ethandiol: No data available.
- sodium borate: No data available.

Carcinogenicity

**Product:** No data available.

**Specified substance(s)**
- Ethandiol: No data available.
- sodium borate: No data available.

Reproductive toxicity

**Product:** No data available.

**Specified substance(s)**
- Ethandiol: No data available.
- sodium borate: No data available.

Specific Target Organ Toxicity - Single Exposure

**Product:** No data available.

**Specified substance(s)**
- Ethandiol: No data available.
- sodium borate: No data available.

Specific Target Organ Toxicity - Repeated Exposure

**Product:** No data available.

**Specified substance(s)**
- Ethandiol: No data available.
- sodium borate: No data available.

Aspiration Hazard

**Product:** No data available.

**Specified substance(s)**
- Ethandiol: No data available.
- sodium borate: No data available.

Other Adverse Effects:

No data available.
SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

Fish
Product: No data available.

Specified substance(s)
Ethandiol No data available.
sodium borate No data available.

Aquatic Invertebrates
Product: No data available.

Specified substance(s)
Ethandiol No data available.
sodium borate No data available.

Chronic Toxicity

Fish
Product: No data available.

Specified substance(s)
Ethandiol No data available.
sodium borate No data available.

Aquatic Invertebrates
Product: No data available.

Specified substance(s)
Ethandiol No data available.
sodium borate No data available.

Toxicity to Aquatic Plants
Product: No data available.

Specified substance(s)
Ethandiol No data available.
sodium borate No data available.

12.2 Persistence and Degradability

Biodegradation
Product: No data available.

Specified substance(s)
Ethandiol No data available.
sodium borate No data available.
12.3 Bioaccumulative Potential

Product: No data available.

Specified substance(s)

Ethandiol: No data available.
sodium borate: No data available.

12.4 Mobility in Soil:

Known or predicted distribution to environmental compartments

Ethandiol: No data available.
sodium borate: No data available.

12.5 Results of PBT and vPvB assessment:

Ethandiol: No data available.
sodium borate: No data available.

12.6 Other Adverse Effects:

No data available.

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

14 06 03*: other solvents and solvent mixtures

SECTION 14: Transport information

ADR/RID

14.1 UN Number: –
14.2 UN Proper Shipping Name: –
14.3 Transport Hazard Class(es)

Class: Non-dangerous goods

Label(s): –
Hazard No. (ADR): –
Tunnel restriction code: –

14.4 Packing Group: –
14.5 Environmental hazards: –
14.6 Special precautions for user: –
Product name: MAINTAIN FRICOFIN ESK

ADN
14.1 UN Number: –
14.2 UN Proper Shipping Name: –
14.3 Transport Hazard Class(es): Non-dangerous goods
   Class: –
   Label(s): –
14.3 Packing Group: –
14.5 Environmental hazards: –
14.6 Special precautions for user: –

IMDG
14.1 UN Number: –
14.2 UN Proper Shipping Name: –
14.3 Transport Hazard Class(es): Non-dangerous goods
   Class: –
   Label(s): –
   EmS No.: –
14.3 Packing Group: –
14.5 Environmental hazards: –
14.6 Special precautions for user: –

IATA
14.1 UN Number: –
14.2 Proper Shipping Name: –
14.3 Transport Hazard Class(es): Non-dangerous goods
   Class: –
   Label(s): –
14.4 Packing Group: –
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:

National Regulations

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: MAINTAIN FRICOFIN ESK

Wording of the H-statements in section 2 and 3

H302  Harmful if swallowed.
H319  Causes serious eye irritation.
H360FD May damage fertility. May damage the unborn child.
H373  May cause damage to organs through prolonged or repeated exposure.

Training information: Follow training instructions when handling this material.

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: 14.07.2015

Disclaimer: The data contained in this safety data sheet are based on our current knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not transferable to other products. In the case of mixing the product with other products or in the case of processing, the data in this safety data sheet are not necessarily valid for the new-made material. It is the responsibility of the recipient of the product to observe federal, state and local law. Please contact us to obtain up-to-date safety data sheets. This document was issued electronically and has no signature.