

## SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

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

#### 1.1 Product identifier

**Product name:** MAINTAIN FRICOFIN LL-YF

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

**Identified uses:**

**Uses advised against:** No uses advised against identified.

#### 1.3 Details of the supplier of the safety data sheet

**Manufacturer / Supplier** FUCHS LUBRICANTS SWEDEN AB  
Box 194  
149 22 Nynäshamn SE

Telephone: +46 8 128 25 000

**Contact Person:** HSE Advisor  
Telephone: +46 8 128 25 000  
E-mail: HSEASC@fuchs-oil.com

**1.4 Emergency telephone number:** +46 20 996 000

### 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

Acute toxicity (Oral)	Category 4	H302: Harmful if swallowed.
Specific Target Organ Toxicity - Repeated Exposure	Category 2	H373: May cause damage to organs (Kidney) through prolonged or repeated exposure.

##### Hazard summary

**Physical Hazards:** No data available.

#### 2.2 Label Elements

**Contains:** Ethanediol

**Product name:** MAINTAIN FRICOFIN LL-YF



**Signal Words:** Warning

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

**Precautionary Statements**

**General information:** P270: Do not eat, drink or smoke when using this product.  
P330: Rinse mouth.

**Prevention:** P260: Do not breathe dust/fume/gas/mist/vapors/spray.  
P264: Wash thoroughly after handling.

**Response:** P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.

**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.

Chemical name	Identifier	Concentration *	REACH Registration No.	Notes
Ethanediol	EINECS: 203-473-3	50,00 - <100,00%	01-2119456816-28	
Sodium benzoate	EINECS: 208-534-8	1,00 - <5,00%		
sodium borate	EINECS: 215-540-4	0,30 - <1,00%		**

\* 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.

\*\* Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List

**Product name:** MAINTAIN FRICOFIN LL-YF

### Classification

Chemical name	Identifier	Classification
Ethanediol	EINECS: 203-473-3	CLP: Acute Tox. 4;H302, STOT RE 2;H373
Sodium benzoate	EINECS: 208-534-8	CLP: Eye Irrit. 2;H319
sodium borate	EINECS: 215-540-4	CLP: Repr. 1B;H360FD

CLP: Regulation No. 1272/2008.

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:** 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.

**Ingestion:** Induce vomiting, if person is conscious. Rinse mouth. Get medical attention immediately.

**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** Get medical attention if symptoms occur.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media:** CO<sub>2</sub>, 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.

**Product name:** MAINTAIN FRICOFIN LL-YF

**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:** Prevent from spreading (e.g. by binding or oil barriers). Avoid release to the environment. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so. 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:** Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products. Prevent formation of aerosols. 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.
- 7.3 Specific end use(s):** not applicable

#### SECTION 8: Exposure controls/personal protection

##### 8.1 Control Parameters

##### Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Ethanediol	NGV	10 ppm 25 mg/m3	Sweden. Occupational Exposure Limit Values (2007)
Ethanediol	KTV	20 ppm 50 mg/m3	Sweden. Occupational Exposure Limit Values (2007)

##### 8.2 Exposure controls

**Product name:** MAINTAIN FRICOFIN LL-YF

**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.

**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**

**Appearance**

<b>Physical state:</b>	liquid
<b>Color:</b>	Yellow
<b>Odor:</b>	Characteristic
<b>Odor Threshold:</b>	Not applicable for mixtures
<b>pH:</b>	7,2 (50 g/l, 20 °C)
<b>Freezing point:</b>	Not applicable for mixtures
<b>Boiling Point:</b>	Value not relevant for classification

**Product name:** MAINTAIN FRICOFIN LL-YF

<b>Flash Point:</b>	> 120 °C
<b>Evaporation Rate:</b>	Not applicable for mixtures
<b>Flammability (solid, gas):</b>	Value not relevant for classification
<b>Flammability Limit - Upper (%)-:</b>	Not applicable for mixtures
<b>Flammability Limit - Lower (%)-:</b>	Not applicable for mixtures
<b>Vapor pressure:</b>	Not applicable for mixtures
<b>Vapor density (air=1):</b>	Not applicable for mixtures
<b>Density:</b>	1,12 g/cm <sup>3</sup> (20 °C)
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	Soluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	Not applicable for mixtures
<b>Autoignition Temperature:</b>	Value not relevant for classification
<b>Decomposition Temperature:</b>	Value not relevant for classification
<b>Flow time</b>	Value not relevant for classification
<b>Explosive properties:</b>	Value not relevant for classification
<b>Oxidizing properties:</b>	Value not relevant for classification
<b>9.2 Other information</b>	No data available.

#### SECTION 10: Stability and reactivity

<b>10.1 Reactivity:</b>	Stable under normal use conditions.
<b>10.2 Chemical Stability:</b>	Stable under normal use conditions.
<b>10.3 Possibility of hazardous reactions:</b>	Stable under normal use conditions.
<b>10.4 Conditions to avoid:</b>	Stable under normal use conditions.
<b>10.5 Incompatible Materials:</b>	Strong oxidizing substances. Strong acids. Strong bases.
<b>10.6 Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

#### SECTION 11: Toxicological information

##### Information on likely routes of exposure

<b>Inhalation:</b>	No data available.
<b>Ingestion:</b>	Harmful if swallowed.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.

**Product name:** MAINTAIN FRICOFIN LL-YF

---

## 11.1 Information on toxicological effects

### Acute toxicity

#### Oral

<b>Product:</b>	ATEmix: 1.600 mg/kg
<b>Specified substance(s)</b>	
Ethenediol	LD 50 (Human): 1.600 mg/kg
Sodium benzoate	LD 50 (Rat): 2.100 mg/kg
sodium borate	LD 50 (Rat): > 2.500 mg/kg (OECD 401)

#### Dermal

<b>Product:</b>	Not classified for acute toxicity based on available data.
<b>Specified substance(s)</b>	
Ethenediol	LD 50 (Mouse): 3.500 mg/kg
Sodium benzoate	LD 50 (Rat): > 2.001 mg/kg
sodium borate	LD 50 (Rabbit): > 2.001 mg/kg

#### Inhalation

<b>Product:</b>	Not classified for acute toxicity based on available data.
<b>Specified substance(s)</b>	
Sodium benzoate	LC 50> 12,2 mg/l

#### Skin Corrosion/Irritation:

<b>Product:</b>	Based on available data, the classification criteria are not met.
-----------------	---

#### Serious Eye Damage/Eye Irritation:

<b>Product:</b>	Based on available data, the classification criteria are not met.
-----------------	---

#### Respiratory or Skin Sensitization:

<b>Product:</b>	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)

Ethenediol	No sensitizing effect (guinea pig); OECD 406
------------	--

#### Germ Cell Mutagenicity

<b>Product:</b>	Based on available data, the classification criteria are not met.
-----------------	---

#### Carcinogenicity

<b>Product:</b>	Based on available data, the classification criteria are not met.
-----------------	---

#### Reproductive toxicity

<b>Product:</b>	Based on available data, the classification criteria are not met.
-----------------	---

**Product name:** MAINTAIN FRICOFIN LL-YF

**Specific Target Organ Toxicity - Single Exposure**

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

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** May cause damage to kidneys through prolonged or repeated exposure if swallowed

**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)**

Ethanediol LC 50 (Fish, 96 h): 72.860 mg/l

Sodium benzoate LC 50 (Fish, 96 h): 420 - 558 mg/l  
LC 50 (Fish, 96 h): 100 mg/l

**Aquatic Invertebrates**

**Specified substance(s)**

Ethanediol EC 50 (Water Flea, 48 h): > 100 mg/l (OECD 202)

Sodium benzoate EC 50 (Water Flea, 48 h): 650 mg/l

**Chronic ToxicityProduct:** Based on available data, the classification criteria are not met.

**Fish**

**Specified substance(s)**

Ethanediol NOEC (Fish, 7 d): 15.380 mg/l

**Aquatic Invertebrates**

**Specified substance(s)**

Ethanediol NOEC (Water Flea, 7 d): 8.590 mg/l

**Toxicity to Aquatic Plants**

**Specified substance(s)**

Sodium benzoate EC 50 (Alga, 72 h): > 100 mg/l

**12.2 Persistence and Degradability**

**Biodegradation**

**Product:** Not applicable for mixtures



**Product name:** MAINTAIN FRICOFIN LL-YF

**Specified substance(s)**

Ethenediol > 90 % (10 d, OECD 301A) The product is easily biodegradable.  
Sodium benzoate Readily 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:**

No data available.

**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**

16 01 14\*: antifreeze fluids containing dangerous substances

**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 LL-YF

**IMDG**

- 14.1 UN Number: –
- 14.2 UN Proper Shipping Name: –
- 14.3 Transport Hazard Class(es)  
Class: Non-dangerous goods
- 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):  
Class: Non-dangerous goods
- 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 MARPOL 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.

**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.

**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:** 17.05.2017

**Product name:** MAINTAIN FRICOFIN LL-YF

---

**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.