

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: ECOCOOL S-FC IDM

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 Schmierstoffe GmbH
Friesenheimer Str. 19
68169 Mannheim

US Distributor
Fuchs Lubricants Co.
17050 Lathrop Avenue
Harvey, IL 60426
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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 irritation

Category 2

H315: Causes skin irritation.

Serious eye damage

Category 1

H318: Causes serious eye damage.

Product name: ECOCOOL S-FC IDM

Hazard summary

Physical Hazards: No data available.

2.2 Label Elements

Contains: prim. Alkanol amine



Signal Words: Danger

Hazard Statement(s): H315: Causes skin irritation.
H318: Causes serious eye damage.

Precautionary Statements

Prevention: P262: Do not get in eyes, on skin, or on clothing.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: 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.

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: Mineral oil free mixture of corrosion preventive agents and glycols. This product is applied only as solution or emulsion in water.

Product name: ECOCOOL S-FC IDM

Chemical name	Identifier	Concentration *	REACH Registration No.	Notes
acid, ionic equilibrium with organic bases	Neutralisation product (*)	5,00% - <10,00%		
Alkanolamine	EINECS: 203-312-7	5,00% - <10,00%	01-2119488970-24	
prim. Alkanol amine	EINECS: 213-195-4	3,00% - <5,00%	01-2119520701-52	
prim. alkanolamine, ionic equilibrium with acids	Neutralisation product (*)	1,00% - <5,00%		
prim. alkanolamine, ionic equilibrium with acids	Neutralisation product (*)	1,00% - <5,00%		
quaternary ammonium compound	Polymer	0,10% - <0,25%		

* 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.

(*) Neutralisation product: Equilibrium of Ionic Pairs in aqueous solution according to REACH Annex V, 4.

Classification

Chemical name	Identifier	Classification
acid, ionic equilibrium with organic bases	Neutralisation product (*)	CLP: Acute Tox. 4;H302, Eye Irrit. 2;H319, Skin Irrit. 2;H315
Alkanolamine	EINECS: 203-312-7	CLP: Eye Irrit. 2;H319
prim. Alkanol amine	EINECS: 213-195-4	CLP: Skin Corr. 1B;H314, Eye Dam. 1;H318
prim. alkanolamine, ionic equilibrium with acids	Neutralisation product (*)	CLP: Acute Tox. 4;H312, Eye Irrit. 2;H319, Skin Irrit. 2;H315
prim. alkanolamine, ionic equilibrium with acids	Neutralisation product (*)	CLP: Eye Irrit. 2;H319, Skin Irrit. 2;H315
quaternary ammonium compound	Polymer	CLP: Aquatic Acute 1;H400, Aquatic Chronic 1;H410; M-Factor (aquatic acute): 10; M-Factor (aquatic chronic): 1

CLP: Regulation No. 1272/2008.

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.

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

Risk of serious damage to eyes. Causes burns.

Product name: ECOCOOL S-FC IDM

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| 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. |
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SECTION 5: Firefighting measures

5.1 Extinguishing media

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| Suitable extinguishing media: | CO ₂ , 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. |

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

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| 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

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| 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: | 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. |

Product name: ECOCOOL S-FC IDM

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: 8 B, Non-combustible corrosive substances

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
prim. Alkanol amine	MAK	0,2 ppm 0,87 mg/m ³	Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as amended (2013)
Glycerol - Inhalable fraction.	AGW	200 mg/m ³	Germany. TRGS 900, Occupational Exposure Limits (AGW), as amended (11 2016)

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 S-FC IDM

Skin protection

Hand Protection:

Material: Nitrile butyl rubber (NBR).
Min. Breakthrough time: ≥ 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

Physical state:

liquid

Form:

liquid

Color:

Yellow-orange

Odor:

Characteristic

pH:

9,5 (50 g/l)

Freezing point:

not determined

Boiling Point:

not determined

Flash Point:

Not applicable

Evaporation Rate:

Not applicable for mixtures

Flammability (solid, gas):

not determined

Flammability Limit - Upper (%)—:

Not applicable for mixtures

Flammability Limit - Lower (%)—:

Not applicable for mixtures

Vapor pressure:

Not applicable for mixtures

Relative vapor density:

Not applicable for mixtures

Density:

1,05 g/ml (15,00 °C)

Solubility(ies)

Solubility in Water:

Soluble

Solubility (other):

No data available.

Partition coefficient (n-octanol/water):

Not applicable for mixtures

Autoignition Temperature:

not determined

Product name: ECOCOOL S-FC IDM

Decomposition Temperature:	not determined
Kinematic viscosity:	10 mm ² /s (40 °C)
Explosive properties:	Value not relevant for classification
Oxidizing properties:	Value not relevant for classification
Particle characteristics:	Not applicable
9.2 Other information	No data available.

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.
10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
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: 14.666 mg/kg
Specified substance(s)	
acid, ionic equilibrium with organic bases	LD 50 (Rat): 1.100 mg/kg
Alkanolamine	LD 50 (Rat): 4.680 mg/kg
prim. Alkanol amine	LD 50 (Rat, Female, Male): 3.400 mg/kg
prim. alkanolamine, ionic equilibrium with acids	LD 50 (Rat): 2.700 mg/kg
prim. alkanolamine, ionic equilibrium with acids	LD 50 (Rat): 3.400 mg/kg

Product name: ECOCOOL S-FC IDM

Dermal

Product: ATEmix: 35.555 mg/kg
Specified substance(s)
 Alkanolamine LD 50 (Rabbit): 5.990 mg/kg
 prim. alkanolamine, ionic LD 50 (Rabbit): 1.600 mg/kg
 equilibrium with acids

Inhalation

Product: Not classified for acute toxicity based on available data.
Specified substance(s)
 prim. Alkanol amine LC 50 (Rat, Female, Male, 8 h): > 8,7 mg/l
 Vapour

Skin Corrosion/Irritation:

Product: Based on available data, the classification criteria are met.
Specified substance(s)
 prim. Alkanol amine OECD 404 (Rabbit):
 Corrosive.

Serious Eye Damage/Eye Irritation:

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

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)

Alkanolamine No sensitizing effect (guinea pig); OECD 406
 prim. Alkanol amine 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.

Product name: ECOCOOL S-FC IDM

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)

acid, ionic equilibrium
with organic bases LC 50 (Fish, 96 h): 122 mg/l

Alkanolamine LC 50 (Fish, 96 h): 1.466 mg/l

prim. Alkanol amine LC 50 (Fish, 96 h): 460 mg/l

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

quarternary ammonium
compound LC 50 (Fish, 96 h): 0,047 mg/l

Aquatic Invertebrates

Specified substance(s)

acid, ionic equilibrium
with organic bases EC 50 (Water Flea, 48 h): 68 mg/l

Alkanolamine EC 50 (Water Flea, 48 h): 233 mg/l

prim. Alkanol amine EC 50 (Water Flea, 48 h): 189 mg/l

prim. alkanolamine, ionic
equilibrium with acids EC 50 (Water Flea, 48 h): 108,8 mg/l

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

quarternary ammonium
compound EC 50 (Water Flea, 48 h): 0,37 mg/l

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

Fish

Specified substance(s)

quarternary ammonium
compound NOEC (Fish): 0,037 mg/l

Aquatic Invertebrates

Specified substance(s)

Alkanolamine NOEC (Water Flea, 96 d): > 100 mg/l

quarternary ammonium
compound NOEC (Water Flea): 0,08 mg/l

Product name: ECOCOOL S-FC IDM

Toxicity to Aquatic Plants

Specified substance(s)

acid, ionic equilibrium with organic bases	EC 50 (Alga, 72 h): 81 mg/l
Alkanolamine	EC 50 (Alga, 72 h): 176 mg/l
prim. Alkanol amine	EC 50 (Alga, 72 h): 202 mg/l
prim. alkanolamine, ionic equilibrium with acids	EC 50 (Alga, 72 h): 32,7 mg/l
prim. alkanolamine, ionic equilibrium with acids	EC 50 (Alga, 72 h): 202 mg/l

12.2 Persistence and Degradability

Biodegradation

Product:

Not applicable for mixtures

Specified substance(s)

Alkanolamine	96 % (18 d) Readily biodegradable
prim. Alkanol amine	84 % (28 d, OECD 302B) 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.

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:

Do not empty into drains; dispose of this material and its container in a safe way. When storing used products, ensure that the waste categories and mixing instructions are observed.

European Waste Codes

12 01 09*: machining emulsions and solutions free of halogens

Product name: ECOCOOL S-FC IDM

SECTION 14: Transport information

ADR/RID

- | | |
|------------------------------------|---------------------|
| 14.1 UN number or ID 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: | — |

IMDG

- | | |
|------------------------------------|---------------------|
| 14.1 UN number or ID 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 or ID 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

EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances: none

EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: none

National Regulations

Water Hazard Class (WGK): WGK 1: slightly water-endangering.

Product name: ECOCOOL S-FC IDM

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.
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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Other information:

The classification complies with the current EU lists; however, it has been supplemented with expert literature information and information provided by/about our company. The following evaluation methods were used: - On the basis of test data - Calculation Method - Bridging Principle "Substantially similar mixtures" - Expert Judgement

Revision Date:

25.04.2022

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.