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

1.1. Product identifier

Name of product FM COOLANT

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

Recommended intended purpose(s)
Antifreezer

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor
FUCHS LUBRITECH GMBH
Werner-Heisenberg-Straße 1, D-67661 Kaiserslautern/Germany
Phone +49 (0) 6301 3206 - 0, Fax +49 (0) 6301 3206 - 940
E-Mail reach@fuchs-lubritech.de
Internet www.fuchs-lubritech.com

Advice
Product Safety Management
Phone +49 (0) 6301 3206 - 0
Fax +49 (0) 6301 3206 - 940
E-mail (competent person):
reach@fuchs-lubritech.de

US Distributor
Fuchs Lubricants Co.
17050 Lathrop Avenue
Harvey, IL 60426
(708) 333-8900
(800) 255-3924 24 hrs Emergency

1.4. Emergency telephone number

Emergency advice
+49 (0)171 / 4632154
Phone 06301/3206-808
This number is only available at office times.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to 67/548/EEC or 1999/45/EC

Additional hints
The product does not require a hazard warning label in accordance with EC directives/German regulations on dangerous substances.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

Additional information

Remark
This mixture is not classified as hazardous according to Regulation (EC) 1272/2008

2.3. Other hazards

Information pertaining to special dangers for human and environment
none at appropriate handling and storage

SECTION 3: Composition/ information on ingredients

3.2. Mixtures

Description
Blend of monopropylene glycol, water and additives

Additional advice
none at appropriate handling and storage

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Remove contaminated soaked clothing immediately, don`t leave to dry.

In case of inhalation
Call doctor in case of indisposition
Ensure of fresh air.
(may be relevant for vapours of superheated product)

In case of skin contact
In case of contact with skin wash off with soap and water.

In case of eye contact
In case of contact with eyes rinse thoroughly with water.

In case of ingestion
Do not induce vomiting.
Call for a doctor immediately.

4.2. Most important symptoms and effects, both acute and delayed
Physician's information / possible symptoms
No symptoms known so far.

4.3. Indication of any immediate medical attention and special treatment needed
Treatment (Advice to doctor)
Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Alcohol-resistant foam
Dry powder
Carbon dioxide
Water spray jet

Unsuitable extinguishing media
Full water jet

5.2. Special hazards arising from the substance or mixture
Fire gas of organic material has to be classed invariably as respiratory poison.

5.3. Advice for firefighters
Special protective equipment for fire-fighters
Use breathing apparatus with independent air supply.
Wear suitable personal protective equipment for fire extinguishing measures.

Additional information
Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Keep away sources of ignition.
Avoid contact with skin and eyes
High risk of slipping due to leakage/spillage of product.

For emergency responders
no special dangers known

6.2. Environmental precautions
Do not discharge into the drains/surface waters/groundwater.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up
Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).
After taking up the material dispose according to regulation.

Additional Information
Keine gefährlichen Inhaltsstoffe bzw. unterhalb der Berücksichtigungsgrenze gemäß RL 67/548 EWG

6.4. Reference to other sections
Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8
Emergency telephone number: see section 1

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Avoid formation of aerosols.
Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

General protective measures
Avoid contact with eyes and skin
Do not inhale gases/vapours/aerosols.

Hygiene measures
Cloths contaminated with product should not be kept in trouser pockets.
Follow general rules of industrial hygiene for safe handling of chemical products
Wash hands before breaks and after work.
Use barrier skin cream.

Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking
The product is combustible.
Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Prevent penetration into the ground.
Use steel containers.
Use polyethylene containers.

Advice on storage compatibility
Do not store together with oxidising and self-inflammable materials.

Further information on storage conditions
Keep container tightly closed, store at cool and aired place, open and handle carefully.
Storage temperature may not exceed 40°C (=104°F).
Store in a dry place.
Do not keep at temperatures below 0°C.
Recommended storage temperature: room temperature.

Information on storage stability
See technical information about storage of lubricants

Storage group	10
Fire class	B

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice
This product as such does not contain any relevant ingredients with to be observed limited values
As basis for this information served the valid references.

8.2. Exposure controls

Respiratory protection
Not required at determined application

Hand protection
As the product is a preparation of several substances, the actual resistance of the materials used for gloves cannot be scientifically calculated; it is therefore mandatory to check this before using the product.
The break through time depends on the mechanical stress imposed and must therefore be checked individually.
PVC gloves
nitrile gloves
Neoprene gloves

Eye protection
tightly fitting goggles

Other protection measures
Usual working clothes for chemical industries

Appropriate engineering controls
Do not inhale aerosols caused by spraying application
Closed holders to avoid evaporation loss
Care for good room ventilation, exhaust system at workshop place if necessary

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Colour	Odour
liquid	colourless	characteristic

Odour threshold
not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	8,5	20 °C	50 Vol-%		
starts to boil	> 180 °C				
pourpoint	< -60 °C				50% in Wasser
Flash point	112 °C			open cup	
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	2 Vol-%				
Upper explosion limit	12 Vol-%				
Vapour pressure	10 Pa	20 °C			
Relative density	1,051 - 1,061 g/cm3	15 °C		DIN 51757	
Vapour density	ca. 2,5	20 °C			
Solubility in water					miscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	< 1				
Decomposition temperature	not determined				
Viscosity kinematic	47 mm2/s	20 °C			

Oxidising properties
No information available.

Explosive properties
In and after use danger of production of inflammable compounds
The product as such is not explosive.

9.2. Other information
No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
No information available.

10.2. Chemical stability
No information available.

10.3. Possibility of hazardous reactions
No information available.

10.4. Conditions to avoid
Heating, unshielded flame, ignition source, electrostatic charge

10.5. Incompatible materials
Materials to avoid
Reactions with strong oxidising agents.

10.6. Hazardous decomposition products
No hazardous decomposition products known.

Thermal decomposition

Remark	No decomposition if used as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral				not determined
Irritability skin				frequent and/or persistent contact may cause skin irritation
Irritability eye	may have irritating effect			if splash reaches eye
Skin sensitization	No sensitizing effect known			

Experiences made from practice
Frequent contact specially if dried out may cause skin and eye irritations.

Additional information
Toxical dates refer to waterfree substance.
The product was classified on the basis of the calculation procedure of the directive 67/548/EEC (conventional method).

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish				not determined

12.2. Persistence and degradability

Biological degradability	Information on biodegradation processes is available.
Biological eliminability	not determined

12.3. Bioaccumulative potential
No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment
No information available.

12.6. Other adverse effects
Behaviour in sewage plant
Product gets duly not into waste water before it is not treated according to the local regulations.

General regulation
Do not allow uncontrolled leakage of product into the environment.
Product is not allowed to be discharged into aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recommendations for the product
Disposal according to local authority prescriptions

Recommendations for packaging
Uncontaminated packaging may be taken for recycling.
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken fot reuse.

General information
Ultimately responsible for correct classification is the waste producer, as the EWC names different codes for different origins of same waste

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	-	-	-
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)	-	-	-
14.4. Packing group	-	-	-
14.5. Environmental hazards	-	-	-

14.6. Special precautions for user
No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available.

Land and inland navigation transport ADR/RID
No dangerous goods as defined by these transport regulations.

Marine transport IMDG
No dangerous goods as defined by these transport regulations.

Air transport ICAO/IATA-DGR
No dangerous goods as defined by these transport regulations.

Transport/further information
No hazardous goods as defined by prescriptions

SECTION 15: Regulatory information

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

VOC standard
VOC content ca.71 %

National regulations

Water hazard class	1	Einstufung nach VwVwS 1999

15.2. Chemical Safety Assessment
No information available.

! SECTION 16: Other information

Training advice
Use information in this MSDS

Recommended uses and restrictions
usage only according to instructions for use and observance of warning notes
National and local regulations concerning chemicals shall be observed.

Further information
Substantial changes to the former version are marked by "!" on the left margin of the paper.
All the raw materials in this product are listed in TSCA.
All the raw materials in this product are listed in DSL.
All the raw materials in this product are listed in AICS.
All the raw materials in this product are listed in NZIoC (New Zealand).
Refer to product information paper.
The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions.
It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.6

Sources of key data used
Material Safety Data Sheets of raw materials