Safety Data Sheet
According to Regulation (EC) No. 1907/2006 (REACH)

Trade name :	**Fluorinated Fomblin FM 090**	Revision date :	20.04.2021
Part number :	**214-239**	Date of print :	20.04.2021
		Version :	1.2.0

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

1.1 Product Identifier

Fluorinated Fomblin FM 090 / ULTRATHERM 2000 MF 10

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

Product categories [PC]

PC24 – Lubricants, greases, release products

1.3 Details of the supplier of the safety data sheet

Supplier:	INFICON AG
Street:	Alte Landstrasse 6
Postal code/city:	LI-9496 Balzers
Phone:	00423 / 388 3111
E-Mail:	reach.liechtenstein@inficon.com

1.4 Emergency Telephone Number (worldwide)

Tox Info Suisse +41 44 251 51 51 (24 hours)

2 Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

None

2.2 Label elements

None

2.3 Other hazards

None

3 Composition/information on ingredients

3.1 Mixtures

Hazardous ingredients

None

Further ingredients

PFPE oil (Perfluoropolyethers),

PTFE powder (Polytetrafluoroethylen),

Molybdenum disulphide; EC No. : 215-263-9, CAS No.:1317-33-5

4 First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice

Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. In case of respiratory tract irritation, consult a physician.

In case of skin contact

Change contaminated, saturated clothing. Wash immediately with; Water and soap. In case of skin irritation, consult a physician

After eye contact

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

No information available

4.3 Indication of any immediate medical attention and special treatment needed

None

5 Firefighting measures

The product itself does not burn. Reactions with combustible materials possible

5.1 Extinguishing media

Suitable extinguishing media

Dry extinguishing powder. Carbon dioxide (CO2). ABC-powder, BC-powder, Foam. Dry sand

Unsuitable extinguishing media

Water, Strong water jet, High power water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Gases/vapours, corrosive. Very toxic by inhalation. Pyrolysis products, toxic, containing fluorine. Hydrogen fluoride. Sulphur dioxide (SO2)

5.3 Advice for firefighters

Use suitable breathing apparatus

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus

5.4 Additional information

Collect contaminated fire extinguishing water separately. This must not be discharged into drains

6 Accidental release measures

Special danger of slipping by leaking/spilling product. Keep away from sources of ignition. – No smoking!

6.1 Personal precautions, protective equipment and emergency procedures

None

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Ensure waste is collected and contained. Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Soak up inert absorbent and dispose as waste requiring special attention. Suitable material for taking up; Universal binder, Kieselguhr.

6.4 Reference to other sections

None

7 Handling and storage

7.1 Precautions for safe handling

It is recommended to design all work processes always so that the following is excluded: Generation/formation of mist. Avoid: Inhalation of vapours or spray/mists Skin contact Eye contact. When using do not eat, drink, smoke, sniff.

7.2 Conditions for safe storage, including any incompatibilities

Hints on joint storage

Storage class: 13

Storage class (TRGS 510): 13

Keep away from

Food and feedingstuffs

Further information on storage conditions

Keep/Store only in original container. Keep container tightly closed. Protect against Humidity. Dust deposits

7.3 Specific end use(s)

None

8 Exposure controls/personal protection

Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and after work. Separate storage of work clothes. Take the precautions customary when handling chemicals

8.1 Control parameters

None

8.2 Exposure controls

Personal protection equipment

Eye / face protection

None, if handled according to order. Eye protection: not required. Avoid: Eye contact.

Recommended eye protection articles

DIN EN 166

Skin protection

Hand protection

Hand protection is not required

By long-term hand contact

Wear suitable gloves

Suitable material

PE (Polyethylene), NR (natural rubber, natural latex), NBR (Nitrile rubber), BR (Butyl caoutchouc, butyl rubber)

Breakthrough time (maximum wearing time) :

PE > 480 min, NR > 480 min, CR > 480 min, NBR > 480 min, BR > 480 min

Thickness of the glove material

min. 0.38 mm

Recommended glove articles:

EN ISO 374, DIN EN 420 Uvex, KCL, MAPA or comparable articles from other companies.

Respiratory protection

No special measures are necessary. Avoid: Inhalation of vapours or spray/mists

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Colour

black

Safety relevant basis data

Physical state:			pasty
Initial boiling point and boiling range:	(1013 hPa)	>	330 °C
Decomposition temperature:	(1013 hPa)	>	290 °C
Flash point:	(1013 hPa)		none
Vapour pressure:	(50°C)	<<	0.01 hPa
Density:	(20°C)	=	1.99 g/cm^3

9.2 Other information

None

10 Stability and reactivity

10.1 Reactivity

No information available

10.2 Chemical stability

The product is stable

10.3 Possibility of hazardous reactions

Alkali metals, Alkaline earth metal, Powdered metals, Light metals, Aluminium, Titanium, Lewis-acid.

10.4 Conditions to avoid

Thermal decomposition can lead to the release of toxic and corrosive gases.

10.5 Incompatible materials

No information available

10.6 Hazardous decomposition products

Carbon monoxide. Carbon dioxide, Pyrolysis products, toxic, containing fluorine. Hydrogen fluoride. Sulphur dioxide (SO2)

11 Toxicological information

This products is unlikely to harm health, given normal and proper handling and hygenic precautions

11.1 Information on toxicological effects

By analogy

Acute effects

Acute oral toxicity

Parameter:	LD50
Exposure route:	Oral
Species:	Rat
Effective dose:	> 5000 mg/kg

Acute inhalation toxicity

Parameter:	LD50
Exposure route:	Dermal
Secies:	Rabbit
Effective dose:	> 5000 mg/kg

12 Ecological information

Discharge into the environment must be avoided

12.1 Toxicity

By analogy

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter:	LC50
Species:	Pimephales promelas (fathead minnow)
Effective dose:	= 1250 mg/l
Exposure time:	96 h

12.2 Persistence and degradability

Biodegradation

Overall evaluation on the mixture: The product is difficult to biologically degrade.

12.3 Bioaccumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Other adverse effects

No information available

12.7 Additional exotoxicological information

Additional information

According to its formulation, the product contains the following substances:

Molybdenum compounds, insoluble

12.8 Overall evaluation

If product enters soil, it will be mobile and may contaminate groundwater. In accordance with the required stability the product is poorly biodegradable

13 Disposal considerations

Dispose according to legislation. The allocation of waste identity/numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.1 Waste treatment methods

Send to a hazardous waste incinerator facility under observation of official regulations. Collect the waste separately. Evidence for disposal must be provided.

14 Transport information

14.1 UN number

No dangerous goods in sense of these transport regulations

14.2 UN proper shipping name

No dangerous goods in sense of these transport regulations

14.3 Transport hazard class(es)

No dangerous goods in sense of these transport regulations

14.4 Packing group

No dangerous goods in sense of these transport regulations

14.5 Environmental hazards

No dangerous goods in sense of these transport regulations

14.6 Special precautions for user

None

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No transport as bulk according to IBC Code

15 Regulatory Information

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

National regulations

Restrictions of occupation

Not relevant

Störfallverordnung

Not subject to StörfallVO

Water hazard class (WGK)

Class: 1 (Slightly hazardous to water) Classification according to AwSV

Other regulations, restrictions and prohibition regulations

Switzerland

VOCV Regulation

Volatile organic compounds (VOC) content in percent by weight: 0 %

Additional information

TSCA (Toxic Substances Control Act) – USA, United States of America

All chemical substances in this mixture are included on or are exempted from listing on the TSCA Inventory for Chemical Substances.

California Proposition 65 – State of California

Based on available information this product does not contain any components or chemicals currently known to the State of California to cause cancer, birth defects or reproductive harm at levels which would be subject to Proposition 65

15.2 Chemical safety assessment

No information available

16 Other informations

16.1 Indication of changes

15. National regulations

16.2 Abbrevations and acronyms

None

16.3 Key literature references and sources for data

None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272 / 2008 [CPL]

The statement is derived from the properties of the single components.

16.5 Relevant H- and EUH-phrases (Number and full text)

None

16.6 Training advice

None

16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on the safety data sheet is not necessarily valid for the new made-up material.