

SAFETY DATA SHEET

FOMBLIN^Ø GR OT20

Updating: 15/4/2003

Ref: fom0370e

COMPANY IDENTIFICATION

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Emergency Calls

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1) COMPOUND IDENTIFICATION

Trade Name: **FOMBLIN^Ø**
Grade(s): **GR OT20**
Recommended use: Lubricating grease
Structural Formula: $\text{CF}_3\text{-O-}(\text{CF}_2\text{-CF-O})_n\text{-}(\text{CF}_2\text{-O})_m\text{-CF}_3$ + $(\text{C}_2\text{F}_4)_n$
(main ingredient) $\begin{array}{c} | \\ \text{CF}_3 \end{array}$ (Fomblin Y) (Algoflon PTFE)
CAS Name: not assigned
CAS Number : not assigned INDEX Number: not assigned
EINECS Number: exempted ELINCS Number: exempted

2) COMPOSITION/INFORMATION ON INGREDIENTS

Typical composition of the preparation

- Base oil Fomblin Y (CAS N° = 69991-67-9)
- Thickener Algoflon PTFE: (CAS N° = 9002-84-0)

Substances with established exposure limits or classifiable as dangerous according to EC Directive 67/548 and following amendments, in concentration equal or higher than that reported in EC Directive 88/379 (item 3, sect. 6):

<u>Name</u>	<u>Conc.</u>	<u>CAS N°</u>	<u>Classification</u>
none			

3) HAZARDS IDENTIFICATION

Classification The product is not classified as dangerous, according to Directive 1999/45/EC.

Adverse human health effects The product, when properly handled, according to the good working and hygienic practices, is not dangerous for the human health.

Environmental effects The product, when properly handled, according to the good working and hygienic practices, is not dangerous for the environment.

Physical and chemical hazards Harmful effects in case of thermal decomposition, due to heating or fire, for the emission of toxic and corrosive gases.

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4) FIRST-AID MEASURES

Symptomatology following exposure

<u>Eye contact</u>	Redness
<u>Skin contact</u>	Redness
<u>Ingestion</u>	Abdominal pain, nausea, vomit.
<u>Inhalation</u>	Not applicable

First Aid Measures

<u>Eye contact</u>	Wash with plenty of water for at least 15 minutes.
<u>Skin contact</u>	Wash with water and soap.
<u>Ingestion</u>	Give some glasses of water to drink. Induce vomiting. Seek medical advice in case of persistent pain.
<u>Inhalation</u>	Not applicable

5) FIRE FIGHTING MEASURES

Specific hazards	The product is not flammable and not explosive. The heating of the product may cause decomposition with emission of toxic and corrosive vapours.
Specific methods	Stay upwind and at safety distance from flames. In case of surrounding fire, remove the containers, when possible to do so in safe conditions. In case of fire keep containers cool by spraying with water.
Extinguishing media	Water, powders, foams, chemicals, CO ₂ .
Protection of fire-fighters	Self-contained breathing apparatus. Protective clothing for skin and eyes against corrosive vapours.

6) ACCIDENTAL RELEASE MEASURES

Personal precautions	Stop the release as soon as possible, in safe conditions.
Environmental precautions	Avoid the contact of the released product with glowing surfaces and flames. Avoid the discharge of the released product in sewage systems, in surface and underground waters, in the soil.
Methods for cleaning up	Absorb the released liquid with earth, sand or sawdust and collect it in suitable containers for disposal.

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7) HANDLING AND STORAGE

HANDLING

Precautions Avoid heating the product above its decomposition temperature.
Technical measures Provide working areas with adequate ventilation systems and with water-wash facilities (eye bath and emergency showers).

STORAGE

Storage conditions Keep away from heat sources.
Keep away from combustible and explosive materials.
Keep away from incompatible substances (see sect.10).
Packaging Plastic, glass, lined metal
SPECIFIC USES For any particular use, please contact the supplier

8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values Threshold limits of by-products from thermal decomposition (ACGIH 2003) :

HF	TLV/CEILING	2.6 mg/mc	3 ppm
COF₂	TLV/STEL	13.5 mg/mc	5 ppm

OCCUPATIONAL EXPOSURE CONTROLS

Engineering Measures Ensure adequate ventilation, especially in confined areas.
Respiratory protection Not necessary in normal use, self-contained breathing apparatus in case of fire.
Eye protection Safety goggles.
Hand protection Rubber gloves.
Skin and body protection Worksuit or rubber apron.
Hygiene measures Do not drink, eat and smoke during handling.

9) PHYSICAL AND CHEMICAL PROPERTIES

Physical state liquid
Colour: colourless
Odour: odourless
Melting temperature: not applicable
Boiling temperature: not applicable
Decomposition temperature: > 290 °C.
Flashpoint: not flammable
Explosion properties: not explosive
Oxidising properties: not oxidiser
Vapour pressure: < 10⁻⁵ mmHg (20 °C)
Kinematic viscosity: 35 cSt (20 °C.)
Density: 1.9 g/ml (20 °C.)
Solubility in water: not soluble

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Solubility in organic solvents: Partially soluble in fluorinated solvents

10) STABILITY AND REACTIVITY

Stability:	The product is stable in normal conditions of use and storage.
Conditions to avoid:	Avoid heating the product above decomposition temperature; metals promote and lower the decomposition. Avoid contact with flames.
Materials to avoid:	Lewis acids (AlCl ₃ , SbF ₅ , CoF ₃) above 100°C. Fine powdered magnesium, aluminium and their alloys above 100°C.
Hazardous decomposition products:	HF and COF ₂ , which are toxic and corrosive gases.

11) TOXICOLOGICAL INFORMATION

Penetration routes	Contact or ingestion of the liquid product. Inhalation of gases from thermal decomposition.
Adverse effects for the Human Health	
<i>Delayed and/or immediate effects after short and/or prolonged exposure:</i>	
Acute toxicity:	no known effect
Local effects / irritating power:	not irritant; decomposition products may cause severe irritation to skin, eyes and mucosae.
Sensitisation:	no known effect
Chronic toxicity:	no known effect
Carcinogenicity:	The product is not listed as potential carcinogen by National and International Agencies or Competent Authorities
Mutagenicity:	The product is not listed as potential mutagenic by National and International Agencies or Competent Authorities
Reproduction toxicity:	The product is not listed as potential reprotoxic agent by National and International Agencies or Competent Authorities

Experimental toxicological data

<i>(data referred to Fomblin Y)</i>		
Acute toxicity - oral	LD ₅₀ > 2 000 mg/Kg	Species: rat
Acute toxicity - dermal	LD ₅₀ > 2 000 mg/Kg	Species: rat
Chronic Toxicity	NOAEL = 1000 mg/kg/d. (oral, 28 d.)	Species: rat
Irritation -dermal	non irritant	Species: rabbit
Irritation -ocular	non irritant	Species: rabbit
Sensitisation - dermal	non sensitising	Species: Guinea pig
Mutagenicity	Negative (Ames test)	Species:

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12) ECOLOGICAL INFORMATION

Environmental effects

- Mobility: no available data
- Persistence/degradability: no available data
- Bioaccumulation: no available data

Ecostability data no available data

Ecotoxicity data (data referred to Fomblin Y)

Acute toxicity - fish LC₅₀> max. solubility in water

Species: rainbow trout

Acute toxicity - crustaceans EC₅₀> max. solubility in water

Species: daphnia magna

Acute toxicity - bacteria IC₅₀> max. solubility in water

Species: pseudomonas putida

EVALUATION

This product has no known eco-toxicological effects. Use the product according to the good working practice, avoiding polluting the environment.

13) DISPOSAL CONSIDERATIONS

Waste treatment

Send the waste product to thermal destruction, using high-temperature incinerators designed to burn fluorine compounds.

Packaging treatment

Reuse, when possible, the containers, after thorough washing.
Send the waste containers to authorised landfills, according to local laws and regulations.

14) TRANSPORT INFORMATION

Specific hazards

Product not dangerous for transportation.

Packaging information

Product usually shipped in polyethylene containers of different capacities (drums, tanks).

INTERNATIONAL TRANSPORT CLASSIFICATION

Shipping name not assigned

U.N. Number: not applicable

Packaging group: not applicable

ADR/RID

class label

IMO -IMDG Code

class label
EmS N.

Subsidiary risk
Marine pollutant

ICAO/IATA

class label Subsidiary risk

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15) REGULATORY INFORMATION

EC Regulations (Directives 67/548, 1999/45 and following amendments)

Classification

Classification type: not required
Hazard class: none

Labelling

Trade Name: **FOMBLIN^à**
Grade(s): **GR OT20**

Hazard Symbol: none

Risk phrases (R) none

Safety phrases (S) none

TSCA Status

All components are listed on the Toxic Substances Control Act – Section 8(b) Chemical Inventory

International Regulations

All components are listed on the chemical inventories of the following countries:
Japan (ENCS), Australia (AICS), Canada (DSL), Korea (ECL)

16) OTHER INFORMATION

BIBLIOGRAPHY

- Solvay Solexis internal data

Safety Data Sheet according to Directive 2001/58/EC

The information given in this safety data sheet is for safety purpose only. It is given in good faith and based on the best knowledge and experience of the company at the date of issuing.

The Company is not responsible for damages caused by the use of the product in applications for which it was not intended or for conditions of use outside its control.