

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 13.12.2016

Version: 3.02

Revision: 13.12.2016

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

· **1.1 Product identifier**

· **Trade name:** **F4**

· **Project-No.:** PK_0004_M

· **Registration number:**

This substance has (All substances contained in this mixture have) been pre-registered according to regulation (EC) No. 1907/2006 in its current version.

· **1.2 Relevant identified uses of the substance or mixture and uses advised against: -**

· **Application of the substance / the preparation:** Operating fluid / lubricant for vacuum pumps

· **Uses advised against -**

· **1.3 Details of the supplier of the safety data sheet**

· **Supplier/Manufacturer:**

PFEIFFER VACUUM GmbH

Berliner Strasse 43

D-35614 Asslar

Telefon +49 6441 / 802-0

Telefax +49 6441 / 802-1202

www.pfeiffer-vacuum.com

Email: info@pfeiffer-vacuum.de

· **Email competent person:** sds@kft.de

· **Information department:** See supplier/manufacturer

· **1.4 Emergency telephone number:**

National Poison Information Service (NPIS)

24 hour national number professionals only

0844 892 0111

National Health Service (NHS)

24 hour national number consumer

England and Scotland: 111

Wales: 0845 46 47

Northern Ireland: call your local General Practitioner

Call 999 if there is a life-threatening incident.

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008** The substance is not classified according to the CLP regulation.

· **Classification system:**

The classification is based on Regulation (EC) 1272/2008 including its amendments, and on company information.

· **Additional information:**

For this substance/mixture no safety data sheet needs to be generated according to Article 31(1) of Regulation (EC) No 1907/2006. The here presented safety data sheet may therefore not fulfil all requirements of Annex II of this regulation.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

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- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description:**
perfluorinated polyether oil
- **Identification number(s):** -

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** If symptoms persist or in case of doubt, seek medical advice.
- **After inhalation:** Supply fresh air; consult a doctor in case of pain.
- **After skin contact:**
Immediately rinse with water.
Remove contaminated clothes and shoes.
If symptoms persist, consult a doctor.
- **After eye contact:**
First check the victim for contact lenses and remove if present.
Rinse opened eye for several minutes under running water.
If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse mouth with water.
Do not induce vomiting.
If symptoms persist, consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
Symptomatic treatment

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
Carbon dioxide (CO₂)

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Halogenated compounds

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained respiratory protective device.

· **Additional information:**

Heating leads to increased pressure and danger of bursting and explosion. Immediately cool neighbouring packages and containers with sprayed water and, if possible, remove them out of the danger zone.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**



Wear protective equipment. Keep unprotected persons away.

Do not breathe aerosol or vapors.

Particular danger of slipping on leaked/spilled product.

· **6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with non-combustible material like sand, soil or diatomite.

Dam up larger quantities and pump into containers.

Make sure to recycle or dispose of in suitable receptacles.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Do not breathe aerosol or vapors.

Avoid contact with eyes and skin.

· **Information about protection against explosions and fires:**

Use only in explosion protected area.

Protect against electrostatic charges.

Observe the general rules of industrial fire protection.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store container tightly sealed at a cool and dry place with sufficient ventilation.

Store only in the original receptacle.

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- **Information about storage in one common storage facility:**
 Store away from foodstuffs.
 Store away from feed.
 Refer to national regulations for storing hazardous chemicals.
- **Further information about storage conditions:**
 Protect from heat and direct sunlight.
 Keep receptacle tightly sealed.
 Store and transport packagings always in an upright position.
- **Storage class:** 12 Non combustible liquids
- **7.3 Specific end use(s)** No further relevant information available

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required
- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 The usual precautionary measures should be adhered to when handling chemicals.
 Keep away from foodstuffs, beverages and feed.
 Wash hands before breaks and at the end of work.
 Remove all soiled and contaminated clothing immediately.
 Provide eye bath and emergency shower.
- **Breathing equipment:**
 Under normal conditions of use not required
 If vapors form, use suitable respiratory protective device.
- **Protection of hands:**
 Chemical resistant gloves (EN 374)
 The glove material has to be impermeable and resistant to the product/substance/preparation.
 Due to missing tests no recommendation to the glove material can be given for the product / preparation / chemical mixture.
 Selection of the glove material in consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves:**
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material:**
 The exact penetration time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
 Basket goggles (DIN EN 58211, code number 3) or face protection shield
 Goggles recommended during refilling
- **Body protection:**
 Protective work clothing
 Safety footwear

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SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information:**

· **Appearance:**

· Form:	Liquid
· Colour:	Colourless
· Odour:	Odourless
· Odour threshold:	Not determined
· pH-value:	Not determined

· **Change in condition:**

· Melting point/Melting range:	Not determined
· Boiling point/Boiling range:	Not determined

· **Flash point:** Not applicable

· **Flammability (solid, gaseous):** Not applicable

· **Ignition temperature:** Not determined

· **Decomposition temperature:** Not determined

· **Self ignition temperature:** Not determined

· **Danger of explosion:** Not determined

· **Explosion limits:**

· Lower:	Not determined
· Upper:	Not determined

· **Oxidizing properties:** Not determined

· **Vapour pressure at 20 °C:** ≤ 0.00000013 hPa

· **Density at 20 °C:** 1.9 g/cm³

· **Relative density:** Not determined

· **Vapour density:** Not determined

· **Evaporation rate:** Not determined

· **Solubility in / Miscibility with**

· **Water:** Insoluble

· **Partition coefficient (n-octanol/water):** Not determined

· **Viscosity:**

· dynamic:	Not determined
· kinematic at 40 °C:	62 mm ² /s

· **9.2 Other information** No further relevant information available

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available

· **10.2 Chemical stability**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications

· **10.3 Possibility of hazardous reactions** No dangerous reactions known

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- **10.4 Conditions to avoid** No further relevant information available
- **10.5 Incompatible materials:** No further relevant information available
- **10.6 Hazardous decomposition products:**
No hazardous decomposition products if instructions for storage and handling are followed
> 280 °C danger of forming toxic fluorine-containing pyrolysis products.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:** No toxicity data are available for the product itself.
- **Primary irritant effect:**
- **Skin corrosion/irritation** No data available
- **Serious eye damage/irritation** No data available
- **On respiratory tract:** No data available
- **Respiratory or skin sensitisation** No data available
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available
- **12.2 Persistence and degradability** No further relevant information available
- **12.3 Bioaccumulative potential** No further relevant information available
- **12.4 Mobility in soil** No further relevant information available
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous to water
Classification according to German VwVwS dt. 17.05.1999 appendix 3
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Danger to drinking water is possible if large quantities leak into the ground or into water course.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable
- **12.6 Other adverse effects** No further relevant information available

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SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation:**

Must be recycled or disposed of according to the regulations. Waste has to be classified according to the European Waste Catalogue based on the identification of the waste generating source.

Disposal according to instructions of local authorities

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN-Number**

· ADR, ADN, IMDG, IATA Void

· **14.2 UN proper shipping name**

· ADR, ADN, IMDG, IATA Void

· **14.3 Transport hazard class(es)**

· ADR, ADN, IMDG, IATA

· Class Void

· **14.4 Packing group**

· ADR, IMDG, IATA Void

· **14.5 Environmental hazards:**

· Marine pollutant: No

· **14.6 Special precautions for user**

Not applicable

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

Not applicable

· UN "Model Regulation":

Void

SECTION 15: Regulatory information

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

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I Substance is not listed.

· National regulations

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water

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· **Further information:**

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Reasons for amendments:** General revision

· **Replaces version dated:** 08.03.2016

· **Department issuing SDS:**

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· **Contact:** Dr. Faiza Khan

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

MAL-Code: Måleteknisk Arbejdshygienisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· **Sources:** MSDS of the supplier

· *** Data compared to the previous version altered.**

Changes have been made to sections marked with a *, as compared to the previous version.