

Printing date 19.01.2009

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

- **Product details**
- **Trade name:** *PFC-116*
- **Article number:** *116*
- **Application of the substance / the preparation** *Surface active agent*
- **Manufacturer/Supplier:**
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2 Hazards identification

- **GHS label elements**

**Warning**

- 2.5/C - Contains gas under pressure; may explode if heated.*
- **Storage:**
Protect from sunlight. Store in a well-ventilated place.

3 Composition/information on ingredients

- **Chemical characterization:**
- **CAS No. Description**
76-16-4 perfluoroethane

4 First-aid measures

- **General information:** *Seek immediate medical advice.*
- **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
In cases of frost bites, rinse with plenty of water. Do not remove clothing.
- **After eye contact:** *Rinse opened eye for several minutes under running water.*
- **After swallowing:** *If symptoms persist consult doctor.*
- **Information for doctor:**
- **The following symptoms may occur:**
Frost bites
Causes asphyxiation in high concentrations. May cause an abnormal heart rhythm and prove suddenly fatal.

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the substance, its products of combustion or resulting gases:**
Formation of toxic gases is possible during heating or in case of fire.
Hydrogen fluoride (HF)
- **Protective equipment:** *Do not inhale explosion gases or combustion gases.*

6 Accidental release measures

- **Person-related safety precautions:** *Keep people at a distance and stay on the windward side.*

(Contd. on page 2)
JP

Safety Data Sheet

Printing date 19.01.2009

Revision: 19.01.2009

Trade name: PFC-116

(Contd. of page 1)

- **Measures for environmental protection:** Inform authorities in case of gas release.
- **Measures for cleaning/collecting:** No special measures required.

7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat and direct sunlight.
- **Maximum storage temperature:** 40 °C

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Wash hands before breaks and at the end of work.
Keep away from tobacco products.
- **Respiratory protection:**
Wear respirator for organic gases, where leakage may occur.
Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**



Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.

- **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.
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing

9 Physical and chemical properties

General Information

Form:	Liquefied gas
Colour:	Colourless
Odour:	Odourless

Change in condition

Melting point/Melting range:	-101°C
Boiling point/Boiling range:	-78°C

- **Flash point:** Not applicable.

(Contd. on page 3)

JP

Safety Data Sheet

Printing date 19.01.2009

Revision: 19.01.2009

Trade name: PFC-116

(Contd. of page 2)

- **Danger of explosion:** Product does not present an explosion hazard.
- **Vapour pressure at 20°C:** 2,981 MPa
- **Density at 0°C:** 1,109 g/cm³
- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:** alkali or alkaline earth metals--powdered Al, Zn, Mg, etc.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:**
 Danger of forming toxic pyrolysis products.
 Fluorophosgene on contact with naked flame or red hot objects.

11 Toxicological information

- **Acute toxicity:** no data

12 Ecological information

- **General notes:**
 Ozone depletion potential(ODP) : 0
 Global warming potential(GWP) : 9,200

13 Disposal considerations

- **Product:**
- **Recommendation**
 Must be specially treated adhering to official regulations.
 Incineration in an adequate incinerator is recommended.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN "Model Regulation":** UN2193, HEXAFLUOROETHANE (REFRIGERANT GAS R 116), 2.2

15 Regulatory information

- **Safety phrases:**
 3/7 Keep container tightly closed in a cool place.

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.

- **Department issuing MSDS:** Toxicology and Product Regulatory
- **Contact:** <http://www.daikin.com/>

(Contd. on page 4)

JP

Safety Data Sheet

Printing date 19.01.2009

Revision: 19.01.2009

Trade name: PFC-116

(Contd. of page 3)

· **Abbreviations and acronyms:**

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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

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