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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name: POLYFLON MPA FA-500H****Article number: FA500H DIL****1.2 Relevant identified uses of the substance or mixture and uses advised against:**

No further relevant information available.

**Sector of Use SU8** Manufacture of bulk, large scale chemicals (including petroleum products)**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

DAIKIN INDUSTRIES, LTD. CHEMICALS DIVISION:

OSAKA UMEDA TWIN TOWERS SOUTH, 1-13-1 Umeda, Kita-ku, Osaka-shi, Osaka, 530-0001, Japan

Phone: +81-6-6147-9702 Fax: +81-6-6147-9807

**Further information obtainable from:** <http://www.daikin.com/>**1.4 Emergency telephone number:**

Japan: +81-6-6349-7521

China: +86-532-8388-9090, +86-21-34151689

South Korea: +82-2-568-1722

Americas: CHEMTREC +1-800-424-9300 (Outside US/Canada: +1-703-527-3887)

Europe: +49-211-179 225-0

**SECTION 2: Hazard 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.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008:** Not applicable**Signal word:** Not applicable**SECTION 3: Composition/information on ingredients****Information on ingredients:**

CAS: 9002-84-0 Polytetrafluoroethylene

100%

**SECTION 4: First aid measures****4.1 Description of first aid measures****General information:** Seek medical treatment.**After inhalation:** In case of inhaling decomposed gases: supply fresh air and consult a doctor in case of complaints.**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

After contact with the molten product, cool rapidly with cold water.

Do not pull solidified product off the skin.

Consult a doctor in case of complaints.

**After eye contact:**

Rinse opened eye for several minutes under running water.

Consult an ophthalmologist in case of complaints.

**After swallowing:** If symptoms persist consult a doctor.**4.2 Most important symptoms and effects, both acute and chronic:** No further relevant information available.**4.3 Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire extinguishing methods suitable for surrounding conditions.

**For safety reasons unsuitable extinguishing agents:** No further information available.

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**Trade name: POLYFLON MPA FA-500H****5.2 Special hazards arising from the substance or mixture:***Formation of toxic gases is possible during heating or in case of fire.***5.3 Advice for firefighters:****Protective equipment:***Wear self-contained breathing apparatus and protective suit.**Do not inhale explosion gases or combustion gases.***SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures:***Ensure adequate ventilation before entering the area.**Keep out unauthorized persons.**Wear appropriate protective devices (See Section 8 Exposure Controls/Personal Protection).**Avoid contact with eyes and skin.**Do not swallow the product.***6.2 Environmental precautions:** *Do not allow product to reach sewage system or any water course.***6.3 Methods and material for containment and cleaning up:** *Pick up mechanically.***6.4 Reference to other sections:***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:***Ensure good ventilation/exhaustion at the workplace.**Extractors are required on all machines used for thermal processing or powder handling processes.**Do not handle until all safety precautions have been read and understood.***Information about fire - and explosion protection:** *Keep ignition sources away - Do not smoke.***7.2 Conditions for safe storage, including any incompatibilities:****Storage****Requirements to be met by storerooms and receptacles:** *Store in a cool and dry location.***Information about storage in one common storage facility:***See section 10 for information on incompatible materials.***Further information about storage conditions:***Protect from heat and direct sunlight.**Store containers in a well ventilated area.***7.3 Specific end use(s):** *No further relevant information available.***\* SECTION 8: Exposure controls/personal protection****8.1 Control parameters** *No further information available.***Ingredients with limit values that require monitoring at the workplace:** *Not required.***8.2 Exposure controls** *No further information available***Appropriate engineering controls** *No further data; see item 7.***Individual protection measures, such as personal protective equipment****General protective and hygienic measures:***Wash hands before breaks and at the end of work.**Do not eat or drink while working.**Keep away from tobacco products.***Respiratory protection:***Use respiratory protective device with filters for organic and acid gas (or airline respirators in some cases), if the product is heated above 260 °C and toxic gas is formed.**Dust respirator, simplified dust respirator***Hand protection**

Protective gloves

**Material of gloves:** Rubber

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**Eye/face protection**

Safety glasses

**Body protection:** Protective work clothing**\* SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information**

<b>Physical state</b>	Solid
<b>Colour:</b>	White
<b>Odour:</b>	Odourless
<b>Odour threshold:</b>	Not determined.
<b>Melting point/freezing point:</b>	No further information available.
<b>Boiling point or initial boiling point and boiling range</b>	Undetermined.
<b>Flammability</b>	Product is not flammable.
<b>Lower and upper explosion limit</b>	
<b>Lower explosive limit:</b>	No further information available.
<b>Upper explosive limit:</b>	Not determined.
<b>Flash point:</b>	Not applicable.
<b>Decomposition temperature:</b>	470 °C
<b>pH</b>	Not determined.
<b>Viscosity:</b>	
<b>Kinematic viscosity</b>	Not applicable.
<b>Dynamic:</b>	Not applicable.
<b>Solubility</b>	
<b>water:</b>	Not miscible or difficult to mix.
<b>Partition coefficient n-octanol/water (log value)</b>	No further information available.
	Not determined.
<b>Vapour pressure:</b>	No further information available.
<b>Density and/or relative density</b>	
<b>Density at 20 °C:</b>	2.1 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not applicable.
<b>Particle characteristics</b>	No further information available.

**9.2 Other information:**

<b>Form:</b>	Powder
<b>Auto-ignition temperature:</b>	Not determined.
<b>Explosive properties:</b>	Product does not present an explosion hazard.
<b>Evaporation rate</b>	Not applicable.

**Information with regard to physical hazard classes**

<b>Explosives</b>	Not applicable
<b>Flammable gases</b>	Not applicable
<b>Aerosols</b>	Not applicable
<b>Oxidising gases</b>	Not applicable
<b>Gases under pressure</b>	Not applicable
<b>Flammable liquids</b>	Not applicable
<b>Flammable solids</b>	Not applicable
<b>Self-reactive substances and mixtures</b>	Not applicable
<b>Pyrophoric liquids</b>	Not applicable
<b>Pyrophoric solids</b>	Not applicable
<b>Self-heating substances and mixtures</b>	Not applicable
<b>Substances and mixtures, which emit flammable gases in contact with water</b>	Not applicable

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<b>Oxidising liquids</b>	Not applicable
<b>Oxidising solids</b>	Not applicable
<b>Organic peroxides</b>	Not applicable
<b>Corrosive to metals</b>	Not applicable
<b>Desensitised explosives</b>	Not applicable

**SECTION 10: Stability and reactivity**

**10.1 Reactivity** No further information available.

**10.2 Chemical stability**

**Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.

**10.3 Possibility of hazardous reactions:** No dangerous reactions known under normal conditions of use.

**10.4 Conditions to avoid:** Keep away from heat, sparks, flame, high temperature.

**10.5 Incompatible materials:**

Metal powder (e.g. Al, Mg) and fluorine oxidizer. There is a danger of chemical reactions that could cause fire or explosion when the product is heated with them.

**10.6 Hazardous decomposition products:**

As for decomposition products, particulate matters and extremely toxic/corrosive fumes may be generated (HF, carbonyl fluoride, monomers, perfluoroisobutylene).

Decomposition products differ depending on the temperature and conditions.

**\* SECTION 11: Toxicological information**

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008** No further information available.

**Acute toxicity**

no data

Based on available data, the classification criteria are not met.

**LD/LC50 values relevant for classification:** No further information available.

**Skin corrosion/irritation:**

No further information available.

Based on available data, the classification criteria are not met.

**Serious eye damage/irritation:**

No further information available.

Based on available data, the classification criteria are not met.

**after inhalation:** No further information available.

**Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.

**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.

**Other information (about experimental toxicology):** No further information available.

**Subacute to chronic toxicity:** No further information available.

**Additional toxicological information:**

General effects:

Fumes generated during burning may cause "polymer fume fever" (flu-like symptoms such as fever, chill, cough).

This may last for a whole day and night.

Fumes are not absorbed in skin. No sensitizing effect known.

Effects of hydrogen fluoride:

Low concentration of hydrogen fluoride may cause feeling of dyspnea, cough, irritation in eyes, nose, throat, fever, chill for 1-2 days.

After that, dyspnea, cyanosis and pulmonary edema may be seen.

High concentration of hydrogen fluoride damages liver and kidney.

Effects of carbonyl fluoride:

Skin: Irritation or eruption

Eye: Ulcer in cornea, conjunctiva

Respiratory system: Irritation

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Lung: Temporary symptoms such as cough, pain, dyspnea

Persons who have experienced lung diseases are vulnerable to toxicity caused by excessive exposure to pyrolysis products

**11.2 Information on other hazards:**

**Endocrine disrupting properties:**

Substance is not listed.

## \* SECTION 12: Ecological information

### 12.1 Toxicity

**Aquatic toxicity:** No further relevant information available.

**12.2 Persistence and degradability:** The product is thought to be non-biodegradable.

**12.3 Bioaccumulative potential:** No further relevant information available.

**12.4 Mobility in soil:** No further relevant information available.

### 12.5 Results of PBT and vPvB assessment

**PBT:** No further relevant information available.

**vPvB:** No further information available.

### 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

For information on endocrine disrupting properties see section 11.

### 12.7 Other adverse effects:

**Ecotoxicological effects:** no data

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Recommendation:

Landfill disposal is recommended.

In case of incineration, the temperature must be higher than 800 °C.

Treat exhaust gas such as HF in a suitable way.

Disposal must be made according to official regulations.

#### Uncleaned packaging

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

## \* SECTION 14: Transport information

### 14.1 UN number or ID number

ADR, ADN, IMDG, IATA Not applicable

### 14.2 UN proper shipping name:

ADR, ADN, IMDG, IATA Not applicable

### 14.3 Transport hazard class(es):

ADR, ADN, IMDG, IATA

**Class:** Not applicable

### 14.4 Packing group:

ADR, IMDG, IATA Not applicable

### 14.5 Environmental hazards:

**Marine pollutant:** No

**14.6 Special precautions for user:** Not applicable.

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

**Transport/Additional information:** Avoid direct sunlight. Make sure of no damage, corrosion, leaks on the receptacles.

Take necessary measures for preventing cargo shift.

**UN "Model Regulation":** Not applicable

## \* SECTION 15: Regulatory information

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

No further relevant information available.

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**Trade name: POLYFLON MPA FA-500H****Dutch List of Substances of Very High Concern (ZZS)***Substance is not listed.***Labelling according to Regulation (EC) No 1272/2008** Not applicable**Hazard pictograms** Not applicable**Signal word** Not applicable**Hazard statements** Not applicable**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II***Substance is not listed.***Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))***Substance is not listed.***Annex II - REPORTABLE EXPLOSIVES PRECURSORS***Substance is not listed.***Regulation (EC) No 273/2004 on drug precursors***Substance is not listed.***Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors***Substance is not listed.***National regulations** No further information available.**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**\* SECTION 16: Other information**

*The product is for the industrial use only. We do not guarantee the safety in case the product is used for the other purposes. When using the product for health-care application or food/feed application, consult us in advance. 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 SDS:** EHS Department**Contact:**<http://www.daikin.com/>[sales@daikinchem.de](mailto:sales@daikinchem.de)[www.daikinchem.de](http://www.daikinchem.de)**Abbreviations and acronyms:****RID:** Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)**LATA-DGR:** Dangerous Goods Regulations by the "International Air Transport Association" (IATA)**ICAO:** International Civil Aviation Organisation**ICAO-TI:** Technical Instructions by the "International Civil Aviation Organisation" (ICAO)**ADR:** Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG:** International Maritime Code for Dangerous Goods**LATA:** International Air Transport Association**GHS:** Globally Harmonised System of Classification and Labelling of Chemicals**LC50:** Lethal concentration, 50 percent**LD50:** Lethal dose, 50 percent**PBT:** Persistent, Bioaccumulative and Toxic**vPvB:** very Persistent and very Bioaccumulative**\* Data compared to the previous version altered.**