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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name:** NEOFLON EFEP RP-5000AS**Article number:** RP5000AS**1.2 Relevant identified uses of the substance or mixture and uses advised against:**

No further relevant information available.

**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

DAIKIN INDUSTRIES, LTD. CHEMICALS DIVISION:

Umeda Center Bldg., 4-12, Nakazaki-Nishi 2-chome, Kita-Ku, Osaka, JAPAN

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

Japan: +81-6-6349-7521

China: +86-512-5-232-0949, +86-21-34151689

South Korea: +82-2-568-1722

Americas: +1-256-306-5000

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 product 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:**

Fluoropolymer	85-95%
1333-86-4 Carbon black	5-15%

**Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures****After inhalation:** In case of inhaling decomposed gases: supply fresh air and consult a doctor in case of complaints.**After skin contact:**

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

Do not pull solidified product off the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.**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:** Use fire extinguishing methods suitable for surrounding conditions.**5.2 Special hazards arising from the substance or mixture:** No further relevant information available.**5.3 Advice for firefighters:****Protective equipment:**

Wear self-contained breathing apparatus and protective suit.

Do not inhale explosion gases or combustion gases.

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Trade name: **NEOFLON EFEP RP-5000AS***Wear fully protective suit.***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 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:***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****Additional information about design of technical facilities:** *No further data; see item 7.***8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****1333-86-4 Carbon black**PEL (USA) Long-term value: 3,5 mg/m<sup>3</sup>REL (USA) Long-term value: 3,5\* mg/m<sup>3</sup>

\*0,1 in presence of PAHs; See Pocket Guide Apps.A+C

TLV (USA) Long-term value: 3\* mg/m<sup>3</sup>

\*inhalable fraction

**8.2 Exposure controls****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 150 °C and toxic gas is formed.**Dust respirator, simplified dust respirator*

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**Trade name: NEOFLON EFEP RP-5000AS****Protection of hands:**

Protective gloves

**Material of gloves:** Rubber**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye 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****Appearance**

<b>Form:</b>	Pellets
<b>Colour:</b>	Black
<b>Odour:</b>	Odourless
<b>pH-value:</b>	No further information available.
<b>Melting point/Melting range:</b>	No further information available.
<b>Boiling point/Boiling range:</b>	No further information available.
<b>Flash point:</b>	Not applicable.
<b>Decomposition temperature:</b>	No further information available.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower explosive limit:</b>	No further information available.
<b>Upper explosive limit:</b>	No further information available.
<b>Vapour pressure:</b>	Not applicable.
<b>Density at 25 °C:</b>	1,7-1,8 g/cm <sup>3</sup> No further information available.

**Solubility in / Miscibility with water:** No further information available.**Partition coefficient (n-octanol/water):** No further information available.**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:** 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.

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**Trade name: NEOFLON EFEP RP-5000AS****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 toxicological effects**

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

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

**Primary irritant effect**

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/irritation** Based on available data, the classification criteria are not met.

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

**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

**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

**CMR effects**

**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.

**Chronic study** No further information available.

**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.

**Other information:** The product is slightly 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 relevant information available.

**12.6 Other adverse effects:** No further relevant information available.

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**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:** Not applicable.**ADR, ADN, IMDG, IATA** Not applicable**14.2 UN proper shipping name:****ADR:** Not applicable**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 Transport in bulk according to Annex II of****MARPOL73/78 and the IBC Code:** 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****Labelling according to Regulation (EC) No 1272/2008** Not applicable**Hazard pictograms** Not applicable**Signal word** Not applicable**Hazard statements** Not applicable**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/>**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)**IMDG:** International Maritime Code for Dangerous Goods**IATA:** 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.**