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

1.1 Product identifier

**Trade name:** POLYFLON PTFE ED-1939D21R  
**Article number:** ED1939D21R

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  
Phone: (+81) 6-6373-4345 Fax: (+81) 6-6373-4281

**Further information obtainable from:**  
http://www.daikin.com/

1.4 Emergency telephone number:  
+81-6-6349-7521, +1-256-306-5000, +86-512-5-232-0949, +82-2-568-1722, +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

- **Repr. 1B H360D** May damage the unborn child.

- **Skin Irrit. 2 H315** Causes skin irritation.

- **Eye Irrit. 2 H319** Causes serious eye irritation.

- **STOT SE 3 H335** May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:  
The product is classified and labelled according to the CLP regulation.  
**Signal word:** Danger  
**Precautionary statements:**  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321 Specific treatment (see on this label).  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### SECTION 3: Composition/information on ingredients

**Information on ingredients:**

- **9002-84-0** Polytetrafluoroethylene  
  **Binder**  
  **Polyoxyethylene glycol alkyl ether**  
  **Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315**  
  **1333-86-4** Carbon black

- **9002-84-0** Polytetrafluoroethylene  
  **10-20%**

- **Binder**  
  **1-10%**

- **Polyoxyethylene glycol alkyl ether**  
  **<5%**

- **Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315**  
  **<5%**

- **1333-86-4** Carbon black  
  **<5%**
SECTION 4: First aid measures

4.1 Description of 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. Remove contaminated clothes immediately.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. Immediately rinse with a lot of water for several minutes. Remove contact lenses if possible. Continue rinsing.
After swallowing: Rinse mouth with water. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and chronic: No further relevant information available.
Information for doctor:
Vapors and fumes liberated during hot processing with this material may cause flu-like symptoms (chills, fever and, sometimes, cough) that may not occur until several hours after exposure and typically pass within about 36 to 48 hours.

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:
During heating or in case of fire poisonous gases may be produced. 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:
Mount respiratory protective device. Stay on the windward side. Ensure adequate ventilation before entering the area. Keep out unauthorized persons.

6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up:
For a small amount of leakage: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders) or collect in an empty container that can be sealed tightly. Ensure adequate ventilation.
For a small amount of leakage: Use clean anti-static tools when absorbing the product. For a large amount of leakage: Enclose with banks to avoid outflow. Lead the leakage to a safe place and collect.
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.
Prevent formation of aerosols.
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.
Keep respiratory protective device available.

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.
Keep receptacle tightly sealed.
Information about storage in one common storage facility: Store away from oxidising agents.
Further information about storage conditions:
Protect from heat and direct sunlight.
Store receptacle in a well ventilated area.
Store locked up.

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:

872-50-4 N-Methyl-2-pyrrolidone
OEL (Japan) Long-term value: 4 mg/m³, 1 ppm
WEEL (USA) Long-term value: 10 ppm
Skin

1333-86-4 Carbon black
PEL (USA) Long-term value: 3.5 mg/m³
REL (USA) Long-term value: 3.5* mg/m³
*0,1 in presence of PAHs;See Pocket Guide Apps.A+C
TLV (USA) Long-term value: 3* mg/m³
*inhalable fraction

Ingredients with biological limit values:

872-50-4 N-Methyl-2-pyrrolidone
BEI (USA) 100 mg/L
  Medium: urine
  Time: end of shift
  Parameter: 5-Hydroxy-N-methyl-2-pyrrolidone

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 organic gas cartridge.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:
Protective gloves

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
Form: Liquid
Colour: Black
Odour: Aromatic
Odour threshold: Not determined.

pH-value: Not determined.
Melting point/Melting range: No further information available.
Boiling point/Boiling range: ca. 100 °C

Flash point: Not applicable.
Lower explosive limit: 1,3 Vol %
Upper explosive limit: 9,5 Vol %

Vapour pressure: No further information available.
Density: No further information available.

Solubility in / Miscibility with water: Not miscible or difficult to mix.

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

9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity
10.2 Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions: No dangerous reactions known.
10.4 Conditions to avoid: Keep away from heat, sparks, flame, high temperature.
10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products: Fluorophosgene in contact with naked flame or red hot objects.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity no data

LD/LC50 values relevant for classification: No further information available.
Primary irritant effect on the skin: Irritant to skin and mucous membranes.
Trade name: POLYFLON PTFE ED-1939D21R

on the eye: Irritating effect.
Sensitisation: No sensitising effects known.
Additional toxicological information:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
CMR effects
Repr. 1B
Carcinogenicity: No further information available.
Reproductive toxicity: No further information available.
Specific target organ toxicity - repeated exposure: No further information available.

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.
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.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation: 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:
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: Not applicable
Class:
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:
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": -

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
The product is classified and labelled according to the CLP regulation.
Hazard pictograms

GHS07  GHS08

Signal word Danger

Hazard-determining components of labelling:
N-Methyl-2-pyrrolidone

Hazard statements
H315  Causes skin irritation.
H319  Causes serious eye irritation.
H360D May damage the unborn child.
H335  May cause respiratory irritation.

Precautionary statements
P261  Avoid breathing dust/fume/gas/mist/vapours/spray.
P280  Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321  Specific treatment (see on this label).
P405  Store locked up.
P501  Dispose of contents/container in accordance with local/regional/national/international regulations.

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:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-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 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
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Repr. 1B: Reproductive toxicity, Hazard Category 1B
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3