



# Material Safety Data Sheet

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## Section 1: Identification of the substance and manufacturer

Chemical name **NEOFLON PFA AP-210AS, AP-230AS, AP-230ASE, AP-230ASL**

Company identification

Manufacturer DAIKIN INDUSTRIES, LTD.CHEMICAL DIVISION:  
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## Section 2: Composition / information on ingredients

Component	mass %	CAS RN
1,1,1,2,2,3,3-Heptafluoro-3-[(trifluoroethenyl)oxy]80-95 propane, tetrafluoroethene polymer(PFA)	26655-00-5	
Carbon black	5-20	1333-86-4

## Section 3: Hazard identification

### EMERGENCY OVERVIEW:

Harmful if thermal decomposition products are inhaled. Normally inhalation problems should not be expected.

### Potential Health Effects:

Vapors and fumes liberated during hot processing (above 260 C) 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.

## Section 4: First aid measures

Inhalation If exposed to fumes from overheating or combustion, remove to fresh air. Keep warm and at rest. If breathing has stopped, give artificial respiration. Call a physician.

Skin Contact The compound is not likely to be hazardous, but cleansing the skin after use. If skin contact with hot material occurs: DO NOT ATTEMPT TO REMOVE POLYMER. Immediately cool with plenty of cold water. Have burn treated by a physician.

Eyes Contact Immediately flush eyes with plenty of water for at least 15 minutes. (Remove contact lenses if easily possible.) Consult a physician.

Ingestion Wash out mouth with water. Consult a physician.

**SECTION 5: Fire-fighting measures**

General Information	Low fire hazard.
Extinguishing Media	Water Spray. Dry Chemical. Foam. Carbon Dioxide.
Fire fighting procedures	Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus (SCBA) and full protective equipment.

**WARNING:**

Hazardous decomposition products including carbon dioxide, carbon monoxide, hydrogen fluoride, toxic gases or particles may be formed during combustion. These products may cause severe eye, nose, throat, and lung irritation or toxic effects.

**SECTION 6: Accidental release measures**

General Information	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks	Shovel or sweep up.

**SECTION 7: Handling and storage**

Handling	Use proper personal protective equipment as indicated in Section 8. Wash hands thoroughly after handling. Wash clothing after use. Do not store or consume food, drink, or tobacco in areas where they may become contaminated with this material.
Storage	Keep container tightly closed. Do not smoke in storage area.

**SECTION 8: Exposure controls / personal protection**

Engineering Controls Use local exhaust ventilation facilities, when curing.

Personal Protective Equipment:

Eyes	Wear safety glasses with side shields.
Skin	Wear appropriate gloves, when handling this material to prevent thermal burns.
Clothing	Wear protective clothing and boots as required.
Respirators	If thermal decomposition occurs, mask for acidic gases must be used to avoid inhalation of the product.

Exposure Guidelines:

HF	TLV: (as F): 3ppm; (ceiling values)(ACGIH 1999) MAK: 3ppm; 2.5mg/m <sup>3</sup> , BAT 7mg/g creatinine (1999) MAK as STEL: 6ppm, 5mg/m <sup>3</sup> (1999)
COF <sub>2</sub>	TLV:2ppm;5.4mg/m <sup>3</sup> (as TWA); 5ppm; 13mg/m <sup>3</sup> (as STEL) (ACGIH 1997)
PFIB	TLV: 0.01ppm; 0.082 mg/m <sup>3</sup> (ceiling values) (ACGIH 1993-1994).
Carbon black	TLV: ppm;3.5 mg/m <sup>3</sup> (ACGIH 1994-1995).

**SECTION 9: Physical and chemical properties**

Appearance	Black pellet
Odor	None
Boiling point	Not applicable
Melting Point	300-310 C
Specific gravity	2.12-2.17
Flash point	None
Explosion limits	None
Solubility	
- Water	Insoluble

**SECTION 10: Stability and reactivity**

Stability	Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to Avoid	Ignition sources, excess heat.
Decomposition products	Carbon monoxide, carbon dioxide, HF, toxic gases or particles may be formed during combustion
Polymerization	Will not occur.

**SECTION 11: Toxicological information**

When heated (above 260 C) for a long time, a very small quantity of hydrogen fluoride (HF), carbonyl fluoride (COF<sub>2</sub>) Perfluoroisobutylene (PFIB) is generated. Further the higher temperature, (above 380 C) the larger it will increase.

(as HF or COF<sub>2</sub>)

Burning sensation. Cough. Dizziness. Headache. Laboured breathing. Nausea. Shortness of breath. Sore throat. Vomiting. Symptoms may be delayed.  
Inhalation of this gas or vapour may cause lung oedema.

(as PFIB)

The substance irritates the respiratory tract. Inhalation of this gas may cause lung oedema. Exposure may result in death. The effects may be delayed. Medical observation is indicated.

**SECTION 12: Ecological information**

This substance may not degrade significantly in most natural environments..  
Exotoxicity is expected to be low.

**SECTION 13: Disposal considerations**

Dispose of in compliance with Federal, state and local government regulations.  
Usually considered an inert packaging material that can be recycled or landfilled.

**SECTION 14: Transport information**

SHIPPING NAME	NONE
HAZARD CLASS	NOT DOT REGULATED
LABEL (S)	NONE
UN/NA NUMBER	NONE
IATA	NOT REGULATED BY IATA
IMO IMDG-code	NOT REGULATED FOR OCEAN TRANSPORTATION

**SECTION 15: Regulatory information**

NFPA-HMIS RATINGS (SCALE 0-4): HEALTH=1, FIRE=1, REACTIVITY=0

European Labeling in Accordance with EC Directives

Hazard Symbols -

Risk Phrases -

Safety Phrases 15: Keep away from heat.  
20/21: When using, do not eat, drink or smoke.

**SECTION 16: Other information**

TSCA Chemical Inventory Listed

Canadian DSL Inventory Listed

Australian Inventory Listed

Korea Inventory Listed

Philippine Inventory PICCS: Listed

Japan Listed

ELINCS Number Listed

This product is not designed, manufactured, or intended for medical uses, including implantation to the body or other applications in direct contact with body fluids or tissues.  
Do not use for non-industrial applications.

The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. The information does not relate to use in combination with any other material or in any process.

DAIKIN INDUSTRIES, LTD.CHEMICAL DIVISION:  
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