

Octafluoropropane

1 – Identification of the substance and the company

Trade name:	Octafluoropropane
REACH registration name:	Octafluoropropane
REACH registration number:	05-2114128991-45-0000
Primary uses:	Electronics fluid
Company:	F2 Chemicals Ltd.
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2 – Hazards identification

Classification as per EU-GHS Ordinance (EC) No. 1272/2008

Low pressure liquefied gas

GHS Labelling	H280: Contains gas under pressure; may explode if heated
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Signal word	Warning
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Classification as per Directive 67/548/EEC or Directive 1999/45/EC

Liquefied gas

May cause asphyxiation in high concentrations.

3 – Composition/information on ingredients

<i>Substances</i>	<i>CAS number</i>	<i>EC-No.</i>
1. Octafluoropropane <i>1,1,1,2,2,3,3,3-Octafluoropropane</i>	76-19-7	200-941-9

4 – First-aid measures

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|------------------|---|
| a) Inhalation: | Flutec gases are considered not to have significant acute toxicity by inhalation. |
| b) Skin contact: | Flutec gases are considered to be non-irritating to skin. Possible risk of frostbite from evaporating liquid. |
| c) Eye contact: | Flutec gases are considered to be non-irritating to eyes. Possible risk of frostbite from evaporating liquid. |
| d) Ingestion: | Flutec gases are considered not to have significant acute oral toxicity. |

5 – Fire-fighting measures

- a) Suitable extinguishers: Any.
- b) Unsuitable extinguishers: None.
- c) Hazardous decomposition: Toxic fumes, including hydrogen fluoride fumes, may be produced on thermal decomposition, such as contact with flames, and in particular where hydrogen-containing compounds are also present.
- d) Protective equipment: Use approved self-contained breathing apparatus.
- e) Other hazards: Gas under pressure. Cylinder may explode if exposed to high temperatures of fire. Keep cylinder cool.

6 – Accidental release measures

- a) Personal precautions: Ensure area is well ventilated before approaching or use approved, self-contained breathing apparatus.
If safe to do so, try to stop the release.
Gas heavier than air, may accumulate in low areas, such as basements and workpits.

7 – Handling and storage

- a) Handling: Do not smoke, eat or drink when handling.
Avoid contact of vapour or liquid with red hot surfaces, flames or electrical arcs as this may give rise to toxic gases such as hydrogen fluoride.
Do not use sodium or similar metals or their hydrides for removing water from the liquid; other desiccants are acceptable.
Where possible, systems should be designed to reduce the risk of releases to the atmosphere.
- b) Storage: Keep cylinder below 50°C in a well-ventilated area.

8 – Exposure controls and personal protection

- a) Exposure Limit Values: None.
- b) Exposure Controls: Recommend using in a well-ventilated area.
- c) Occupational exposure: Light eye protection (safety glasses). Thermally insulated gloves for handling the compressed liquid.
- d) Environmental exposure: Where applicable, use in closed systems.

9 – Physical and chemical properties

Appearance:	Clear, colourless liquid
Odour:	Odourless
pH:	n/a
Pour point (melting point):	-183.0°C
Boiling point:	-36.700001°C
Critical temperature:	71.95001°C
Flash point:	Non-flammable
Evaporation rate:	Very fast (boiling point below room temp.)
Explosive limits:	None
Vapour pressure:	0.82 kPa @ 25°C
Vapour pressure:	1600.0 kPa @ 50°C
Vapour density	0.0125 kg/l @bp
Relative density:	1.3200001 @25°C
Solubility in water:	Insoluble (< 25 ppm)
Solubility in organic solvents:	Sparingly soluble in most common solvents. Miscible with CFCs.
Partition co-efficient:	No data
Auto-ignition temperature:	None
Decomposition temperature:	>400°C
Dynamic viscosity:	0.47 mPa s @25°C
Explosive properties:	None
Oxidising properties:	None

10 – Stability and reactivity

a) Stability:	Extremely stable.
b) Conditions to avoid:	Naked flames, hot surfaces (>400°C).
c) Materials to avoid:	Lithium, sodium, potassium, calcium, and barium.
d) Hazardous decomposition	High temperatures can give rise to toxic fumes, including hydrogen fluoride.

11 – Toxicological information

The substance has been assessed on available evidence and found to produce no effect.

12 – Ecological information

a) Ecotoxicity:	No specific data available.
b) Mobility:	Compressed gas; material readily lost to the atmosphere.
c) Persistence:	Material liable to persist in the environment for considerable time; not subject to biodegradation.
d) Bioaccumulation:	Material not expected to accumulate in biota.

13 – Disposal considerations

Observe all national and regional regulations.

14 – Transport information

Transport name	Octafluoropropane
IMDG name	Octafluoropropane (Refrigerant gas R 218)
UN Number	2424
IATA/ICAO	Class 2.2
ADR	Class 2.2
IMDG	Class 2.2
UK Road	Transport category 3
Hazchem code	Not classified

15 – Regulatory information

- a) Chemical safety assessment: Not yet available.
- b) R- and S-Phrases: S41: In case of fire and/or explosion do not breathe fumes.

16 – Other information

- a) Hazard Phrases: H280: Contains gas under pressure; may explode if heated.
- b) Precautionary phrases: P370: In case of fire: Do not breathe fume.
P260: Do not eat, drink or smoke when using this product.
P410 + P403: Protect from sunlight. Store in a well ventilated place.
- c) Suitability for purpose: F2 Chemicals Ltd cannot guarantee the suitability of this material for any particular purpose. It is the responsibility of the customer to satisfy himself that the product is suitable for his purpose. In the event of doubt the customer may contact F2 Chemicals for advice.
- d) Revision: This version, CLP-1.0, has been revised for CLP, November 2010, and the changes are all associated with reformatting and modifying for that purpose. There are no changes to the risks, hazards or properties of the material. This version replaces all previous versions.

— END OF SAFETY DATA SHEET —