



# Octafluoropropane

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 09/08/2019 Version: 4.0

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

#### 1.1. Product identifier

Product form	: Substance
Substance name	: Octafluoropropane
IUPAC name	: 1,1,1,2,2,3,3,3-Octafluoropropane
EC-No.	: 200-941-9
CAS-No.	: 76-19-7
REACH registration No	: 01-2119948589-16
Formula	: C3F8
Synonyms	: Perfluoropropane, R218

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

##### Manufacturer

F2 Chemicals Ltd  
Lea Lane  
Lea Town  
PR4 0RZ Preston - UK  
T +44 (0) 1772 775800  
[safety@f2chemicals.com](mailto:safety@f2chemicals.com)

#### 1.4. Emergency telephone number

Emergency number : +44 (0) 1772 775833 (24 hr)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Press. Gas (Liq.) H280

Full text of hazard classes and H-statements : see section 16

##### Adverse physicochemical, human health and environmental effects

Contains gas under pressure; may explode if heated.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS04

Signal word (CLP) : Warning

Hazard statements (CLP) : H280 - Contains gas under pressure; may explode if heated.

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Substance type : Mono-constituent

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Octafluoropropane	(CAS-No.) 76-19-7 (EC-No.) 200-941-9 (REACH-no) 01-2119948589-16	100	Press. Gas (Liq.), H280

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water. Thaw frosted parts with lukewarm water. Do not rub affected area.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : Contains refrigerated gas; may cause cryogenic burns or injury.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam.

### 5.2. Special hazards arising from the substance or mixture

- Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area.

#### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

- Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Protect from sunlight. Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### Hand protection:

Protective gloves

##### Eye protection:

Safety glasses

##### Skin and body protection:

Wear suitable protective clothing

##### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

##### Environmental exposure controls:

Avoid release to the environment.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Clear, colorless gas.
Molecular mass	: $\approx$ 188 g/mol
Colour	: Colourless.
Odour	: Odourless.
Odour threshold	: Not applicable
pH	: Not applicable
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: $\approx$ -183 °C
Boiling point	: $\approx$ -36.7 °C
Flash point	: Not applicable (non-flammable gas)
Critical temperature	: $\approx$ 72 °C
Auto-ignition temperature	: Not applicable (non-flammable gas)
Decomposition temperature	: > 400 °C
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: $\approx$ 820 kPa
Relative vapour density at 20 °C	: No data available
Relative density	: $\approx$ 1.32
Relative gas density	: $\approx$ 9.7
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: None.
Oxidising properties	: None.
Explosive limits	: Not applicable (non-flammable gas)

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified pH: Not applicable
Serious eye damage/irritation	: Not classified pH: Not applicable
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.






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### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
2424	2424	2424	2424	2424
<b>14.2. UN proper shipping name</b>				
OCTAFLUOROPROPANE (REFRIGERANT GAS R 218)	OCTAFLUOROPROPANE (REFRIGERANT GAS R 218)	Octafluoropropane	OCTAFLUOROPROPANE (REFRIGERANT GAS R 218)	OCTAFLUOROPROPANE (REFRIGERANT GAS R 218)
<b>Transport document description</b>				
UN 2424 OCTAFLUOROPROPANE (REFRIGERANT GAS R 218), 2.2, (C/E)	UN 2424 OCTAFLUOROPROPANE (REFRIGERANT GAS R 218), 2.2	UN 2424 Octafluoropropane, 2.2	UN 2424 OCTAFLUOROPROPANE (REFRIGERANT GAS R 218), 2.2	UN 2424 OCTAFLUOROPROPANE (REFRIGERANT GAS R 218), 2.2
<b>14.3. Transport hazard class(es)</b>				
2.2	2.2	2.2	2.2	2.2
				
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : 2A  
Special provisions (ADR) : 662  
Limited quantities (ADR) : 120ml  
Excepted quantities (ADR) : E1  
Packing instructions (ADR) : P200  
Mixed packing provisions (ADR) : MP9  
Portable tank and bulk container instructions (ADR) : (M), T50  
Tank code (ADR) : PxBN(M)  
Tank special provisions (ADR) : TA4, TT9  
Vehicle for tank carriage : AT  
Transport category (ADR) : 3  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV9, CV10, CV36  
Hazard identification number (Kemler No.) : 20  
Orange plates :



Tunnel restriction code (ADR) : C/E  
EAC code : 2TE

#### - Transport by sea

Packing instructions (IMDG) : P200  
Tank instructions (IMDG) : T50  
EmS-No. (Fire) : F-C  
EmS-No. (Spillage) : S-V  
Stowage category (IMDG) : A  
Properties and observations (IMDG) : Liquefied, non-flammable, colourless gas. Much heavier than air (6.6). Boiling point:-36°C.

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### - Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: 200
PCA max net quantity (IATA)	: 75kg
CAO packing instructions (IATA)	: 200
CAO max net quantity (IATA)	: 150kg
ERG code (IATA)	: 2L

### - Inland waterway transport

Classification code (ADN)	: 2A
Special provisions (ADN)	: 662
Limited quantities (ADN)	: 120 ml
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0

### - Rail transport

Special provisions (RID)	: 662
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P200
Mixed packing provisions (RID)	: MP9
Portable tank and bulk container instructions (RID)	: T50(M)
Special provisions for RID tanks (RID)	: TA4, TT9, TM6
Transport category (RID)	: 3
Special provisions for carriage - Loading, unloading and handling (RID)	: CW9, CW10, CW36
Colis express (express parcels) (RID)	: CE3
Hazard identification number (RID)	: 20

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Octafluoropropane is not on the REACH Candidate List

Octafluoropropane is not on the REACH Annex XIV List

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Full text of H- and EUH-statements:

Press. Gas (Liq.)	Gases under pressure : Liquefied gas
H280	Contains gas under pressure; may explode if heated.

F2 template (no freezing point)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*