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**SAFETY DATA SHEET**

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**1 Identification of the substance/preparation and of the company/undertaking**

Material Name: FM-200\*

Name of Supplier: Redetec Limited  
Address of Supplier: Unit 1, Fifth Street  
The Village  
Trafford Park  
Manchester, M17 1JX  
United Kingdom

Telephone: +44 (0)161 874 1940  
Fax: +44 (0)161 872 3282  
Emergency Telephone: +44 (0)161 874 1940

Responsible Person: A.Whittle

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**2 Composition/information on ingredients**

Chemical Name	Concentration	CAS Number	EC Number	R Phrases	Symbols
1,1,1,2,3,3,3-heptafluoropropane	>99%	431-89-0	207-079-2	None	None

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**3 Hazards identification**

- Appearance: colourless, Gas
- To the best of our knowledge, the properties of this material have not been fully evaluated.
- Contact with liquid or cold gas may cause frost-bite.
- Has central nervous system effects.
- In cases of severe exposure, narcosis may develop

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**4 First aid measures**

## Contact with skin

- Take off immediately all contaminated clothing.
- Wash affected area with plenty of soap and water
- Seek medical advice
- Contaminated clothing should be laundered before reuse
- Possible frost-bite of affected areas

## Contact with eyes

- If substance has got into eyes, immediately wash out with plenty of water for at least 15 minutes
- Seek medical advice

## Ingestion

- Not applicable.

## Inhalation

- Remove patient to fresh air
- Seek medical advice

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## 4 First aid measures (....)

### General

- NOTE TO PHYSICIANS: Treat by observation and supportive measures as indicated by the patients condition

### Notes to Physicians

- The use of epinephrine (adrenaline) is contraindicated in the treatment of over-exposure to this product.

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## 5 Fire-fighting measures

- Not flammable
- Decomposition products may include fluorine compounds and oxides of carbon.
- Use extinguishing media appropriate to surrounding conditions.
- Substance evolves toxic fumes, wear self-contained breathing apparatus
- In the event of an adjacent fire, cool containers with water spray
- Portable containers should be moved if possible and without risk
- This material is stored in a pressurised container.

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## 6 Accidental release measures

### Immediate Actions

- Evacuate the area

### Clean Up Actions

- Allow product to evaporate

### Special Precautions

- Do not allow to enter public sewers and watercourses

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## 7 Handling and storage

### Handling

- Keep container tightly closed.
- Use only in well ventilated areas.

### Storage

- Keep in a cool, dry, well ventilated place

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## 8 Exposure controls/personal protection

### Engineering controls

- Engineering controls should be provided to prevent the need for ventilation

### Personal protection

- Proper chemicals handling procedures should be adopted
- Use good personal hygiene practices
- Wear suitable protective clothing and eye/face protection.
- Wear lined neoprene gloves.
- Wear self-contained breathing apparatus if concentration exceeds 10%

### Exposure Limits

- There are no recommended or established controls for this product

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## 8 Exposure controls/personal protection (....)

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## 9 Physical and chemical properties

- Appearance: colourless, Gas
- Boiling point -16 °C
- Vapour pressure 58.8 psia at 21 deg C
- Vapour density (air = 1) 6.04
- Melting point -131 °C
- Water solubility 0.26 g/l at 20°C
- Specific gravity (water=1) (liquid) 1.46
- Not flammable
- Log Pow 2.5 (calculated value)

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## 10 Stability and reactivity

- Avoid contact with alkalis (strong bases), Avoid contact with oxidising substances, Avoid contact with reducing agents, Avoid contact with powdered metals

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## 11 Toxicological information

### Toxicological information

- LC50 (inhalation, rat) >7200 mg/l/4h
- Contact with liquid or cold gas may cause frost-bite.

### Mutagenicity

- Mutagenicity (Ames Test) : Negative

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## 12 Ecological information

### Ecotoxicology

- No experimental data available

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## 13 Disposal considerations

### Disposal considerations

- Disposal should be in accordance with local, state or national legislation

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## 14 Transport information

Proper Shipping Name: HEPTAFLUOROPROPANE (REFRIGERANT GAS R227)

### Emergency Action Code

EAC : 2RE

### UN

UN No. : 3296                      Hazard Class : 2.2  
Packing Group : Not applicable

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## 14 Transport information (....)

### Road/Rail (ADR/RID)

ADR UN No.	: 3296	ADR Hazard Class	: 2.2
ADR Item No.	: 2°A	ADR/RID No.	: 20
Tremcard	: 20G39		

### Sea (IMDG)

IMDG UN No.	: 3296	IMDG Hazard Class.	: 2.2
IMDG Page No.	: 2144-1	IMDG Pack Group.	: Not applicable
IMDG EmS	: 2-09	IMDG MFAG	: 350

### Air (ICAO/IATA)

ICAO Un No.	: 3296	ICAO Hazard Class.	: 2.2
ICAO Packing Group.	: Not applicable		

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## 15 Regulatory information

### Classification and labelling

- EINECS Number: 207-079-2
- The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties

### Applicable Laws

- This Safety Data Sheet is provided in compliance with the EC Directive 93/112/EC

### Risk Phrases

- None

### Safety Phrases

- When using do not smoke (S21)
- In case of fire and/or explosion do not breathe fumes (S41)

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## 16 Other information

International Inventory Status: EINECS:Included TSCA:Included

Issue Date: 22/08/2001

Previous Edition: 28/08/1997

Amendments: New format

\* FM-200 is a Trade Mark of Great Lakes Chemical Corporation

For further information contact the following:

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