



# Material Safety Data Sheet: FM-200

BS ISO 14520 (2000) Designation: HFC-227ea

Unit 14, The Homeground, Buckingham Industrial Park, Buckingham. MK18 1UH  
Tel: 0870 4422 644 Fax: 0870 4422 645 Email: [info@fireprosystems.co.uk](mailto:info@fireprosystems.co.uk)

## 1 Identification of the substance and of the company.

**Designated Name:** HFC-227ea  
**Trade Name:** FM-200  
**Chemical Name:** 1,1,1,2,3,3,3-Heptafluoropropane  
**General Use:** Fire extinguishant, fire/explosion suppressant.  
**Chemical Family:** Halogenated Alkane  
**Company Identification:** Great Lakes Chemical (Europe) Ltd. Groat Avenue, Aycliffe Industrial estate, Newton Aycliffe, Co. Durham DL5 6HA  
**Emergency phone Number:** 01325 300000

## 2 Composition/Information on Ingredients

**Components/Impurities:** Heptafluoropropane  
**Weight %:** Nominally 100%  
**EEC Number:** 207-079-2

## 3 Hazards Identification

**Hazards Identification:** This Material has no hazardous physio-chemical properties or health effects, based upon the criteria laid down by Chemical (Hazard Information and Packaging) Regulations 1994.

## 4 First Aid Measures

**Inhalation:** Remove person to fresh air and get medical attention.  
**Eye contact:** Flush with water for 15 minutes. Get medical attention.  
**Skin contact:** Wash with water. If frost bite occurs get medical attention.  
**Ingestion:** Not applicable.

## 5 Fire Fighting Measures

**General Hazards:** Non-flammable gas.  
**Fire Fighting Instruction:** Keep cylinders cool with water spray applied from a safe distance.  
**Fire fighting equipment:** All conventional fire extinguishing media are useable. Wear self contained breathing apparatus if cylinders rupture or release under fire conditions.  
**Unusual fire and** This material is stored in a  
**Explosion hazards:** pressurised container and although provided with temperature/pressure relief may rupture if exposed to localised heat.

## 6 Accidental Release Measures

**Air release:** Evacuate area. Ventilate and allow to disperse.  
**Land spill:** Not applicable.  
**Water spill:** Not applicable.

## 7 Handling and storage

**Handling and storage:** Store in a cool well ventilated area. Protect container from damage and keep tightly closed.  
**Storage Temperature:** Ambient.  
**Storage Pressure:** Ambient.

## 8 Exposure Control/Personal Protection

**Engineering Measures:** Ventilation system.  
**Personal protective clothing:**  
▶ **Respiratory:** Self-contained breathing apparatus in emergency situations.  
▶ **Hand and skin:** Lined neoprene gloves when handling liquid. Clothing designed to minimise skin contact.  
▶ **Eye protection:** Anti-splash goggles when handling liquid.  
▶ **Hygiene practices:** Wash hands with soap and water after handling and before eating. Launder contaminated clothing before re-use

## 9 Physical And Chemical Properties

**Physical state:** Liquefied compressed gas.  
**Colour:** Colourless  
**Odour:** Odourless.  
**pH:** Not available.  
**Melting point:** -131 °C  
**Boiling points:** -16.4 °C  
**Flash point:** None  
**Flammable limits:** None  
**Auto ignition temperature:** None  
**Vapour pressure:** 58.8 psia at 21 °C  
**Solubility mg/l water:** 260 mg/l  
**Specific Gravity:** 1.46  
**Vapour density:** 6.04  
**Viscosity:** Not available.  
**Other data:**

## 10 Stability And Reactivity

**Stability:** Stable under normal conditions of handling.  
**Hazardous reactions:** None known.  
**Incompatible with:** Powdered metals (eg Al, Mg or Zn) and strong alkalis, oxidising or reducing agents.  
**Hazardous decomposition products:** Hydrogen fluoride and oxides of carbon.

## 11 Toxicological Information

**General:** Direct eye or skin contact can cause frostbite. Inhalation of high concentrations can be fatal due to oxygen deprivation  
**Inhalation LC50 (rat):** >788,696 ppm

## 12 Ecological Information

**General:** No information available.

## 13 Disposal Considerations

**General:** Non-contaminated material is reclaimable, contact Great Lakes Chemical for details. Otherwise this material should be incinerated in a high temperature chemical waste incinerator fitted with acid gas scrubbing systems. All disposal should be in accordance with local, National and European law.



# Material Safety Data Sheet: FM-200

BS ISO 14520 (2000) Designation: HFC-227ea

Unit 14, The Homeground, Buckingham Industrial Park, Buckingham. MK18 1UH  
Tel: 0870 4422 644 Fax: 0870 4422 645 Email: [info@fireprosystems.co.uk](mailto:info@fireprosystems.co.uk)

---

## 14 Transport Information

**Hazard classification:** Non-flammable compressed gas.  
**Proper Shipping Name:** Heptafluoropropane (Refrigerant gas R227)

**Substance identification Nr:** UN 3296

**RID/ADR:** Class 2.2

**Hazard classification:** Non flammable compressed gas

**IMDG Code page number:** 2144-1

**Packing group:** Not allocated.

## 15 Regulatory Information

**Labelling:** This Material is not classified as hazardous for supply under the Chemical (Hazard Information and packaging) Regulations 1994.

► **Symbols:** No symbol required

► **Risk Phrases:** None.

► **Safety phrases:**

21: When using do not smoke.

41: In case of fire and/or explosion do not breathe fumes.

**This material is covered by the "Control of Substances Hazardous to Health Regulations 1988"**

## 16 Other Information

This data contained herein is based on information currently available to us and believed to be factual and the opinions expressed to be those of qualified experts; however this data is not to be taken as a warranty or representation for which neither Great Lakes Chemical (Europe) Ltd nor Firepro Systems Ltd assumes legal responsibility.