

FM 200: MATERIAL SAFETY DATA SHEET

Section 1 – Company and Chemical Identification

FOT Fire Control

Unit 3 Merchant Evegate
Business park, Smeeth Ashford,
Kent TN24 9RS England.

Issue Date: 24/02/18

Product Name: DuPont FM-200® 1.1.1.2.3.3.3 HEPTAFLUOROPROPANE (HFC -227ea) (R227)

Section 2 – Hazard Identification

Emergency Overview: HEPTAFLUOROPROPANE is a colorless, odorless gas. Direct eye or skin contact with the liquid or cold gas can cause chilling or possibly frostbite of exposed tissues. Inhalation of high concentrations can be harmful or fatal due to oxygen deprivation and/or heart irregularities. Fire Extinguisher cylinders are pressurized. Although unlikely, a cylinder could be propelled and cause bodily injury and/or property damage if the valve is broken due to improper handling or storage.

Section 3 – Composition/Information on Ingredients

C.A.S.	INGREDIENT NAME	OSHA PEL	ACGIH TLV	OSHA STEL	%
431890	FM-200 (HFC 227ea) HEPTAFLUOROPROPANE	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	> 99
7727-37-9	Nitrogen, Compressed	None	Simple Asphyxiant	N/A	1

Section 4 – First Aid Measures

Skin contact: Flush with water, treat for frostbite if necessary, by gently warming affected areas. Consult a physician.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Consult an ophthalmologist.

Inhalation: Remove victim(s) to fresh air, as quickly as possible. If not breathing, qualified personnel should administer artificial respiration. Get medical attention. If breathing is difficult, administer oxygen.

Ingestion: No first aid should be needed. Not considered a potential route of exposure.

Section 5 – Fire Fighting Measures

Flammability: Not flammable.

Conditions of flammability: Will not burn.

Extinguishing media: Use appropriate extinguishing media for surrounding fire.

Keep cylinders cool with water spray applied from a safe distance.

Section 6 – Accidental Release Measures

Evacuate the area and ventilate. Do not enter areas where high concentrations may exist (especially confined or poorly ventilated areas) without appropriate protective equipment including a self-contained breathing apparatus.

Section 7 – Handling and Storage

Handle, transport and store carefully and securely to avoid accidental knocking over or other severe physical impacts. Do not expose to direct heat sources. Do not over-pressurize.

Section 8 – Exposure Controls/Personal Protection

Respiratory: None

Protective Gloves: Leather gloves are recommended when handling cylinders.

Eye Protection: Eye protection is recommended when handling cylinders.

Other Protective Clothing or Equipment: Safety shoes are recommended when handling cylinders.

Work Hygienic Practices: Wash thoroughly after handling. Wash contaminated clothing before reuse.

Section 9 – Physical & Chemical Properties

Appearance: Colorless gas **Physical State:** Gas
Odor: Odorless **Solubility in Water:** 260 mg/L

Section 10 – Stability and Reactivity

Stability: Stable under normal conditions of handling and use.
Conditions to Avoid: None

Section 11 – Toxicological Information

VALUE (LD50 or LC50)	Animal	Routes	Components
>788.696 ppm/4H	Rat	Acute Inhalation	1.1.1.2.3.3.3 Heptafluoropropane

The human health hazards of this product are expected to be similar to other liquefied gases including N₂, CO₂, CFCs, HCFCs, and HBFCs. Therefore, direct eye or skin contact with the liquid or cold gas can cause chilling or possibly frostbite of exposed tissues. Inhalation of high concentrations can be harmful or fatal due to oxygen deprivation and/or heart irregularities (arrhythmias). Misuse of the products by deliberately inhaling high concentrations of this gas could cause death without warning. Persons with pre-existing cardiac or central nervous system disorders may be more susceptible to effects of an overexposure.

Section 12 – Ecological Information

No ecological information is available.

Section 13 – Disposal Considerations

Dispose of waste and empty cylinders as allowed by current Local, State/Province, or Federal laws and regulations.

Section 14 – Transport Information

Proper Shipping Name: Heptafluoropropane **Packing Group:** N/A
ID Number: EN 1000 **Labels:** Non-flammable gas
Hazard Class: 2.2 **Packing Instructions:** 200

Section 15 – Regulatory Information

U.S. Federal Regulations: The components of this product are either on the TSCA Inventory or exempt (i.e. impurities, a polymer complying with the exemption rule at 40 CFR 723.250) from the Inventory.
State Regulations: None Known

Section 16 – Other Information

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) CODES:

HEALTH: 1 (slight hazard); FLAMMABILITY: 0 (will not burn); REACTIVITY: 0 (normally stable); PPE: See Section 8