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MATERIAL SAFETY DATA SHEET
Portable Fire Extinguisher
MSDS No. 123-413 Rev. A Review Date: 05/27/11

Section 1 – Company and Chemical Identification

H3R Aviation

483 Magnolia Avenue
Larkspur, CA 94939, USA
www.H3Raviation.com

Phone: 415-945-0800

Date: 02/17/11

Product Name: **Fire Extinguisher**

EMERGENCY PHONE [24-HOURS] :

CHEMTREC: 1-800-424-9300 (U.S./Canada/Puerto Rico)

CHEMTREC: +1-703-527-3887 (Outside North America)

Section 2 – Hazardous Ingredients / Identity

C.A.S.	INGREDIENT NAME	OSHA PEL	ACGIH TLV	OSHA STEL
431890	HFC-227ea (FM-200) HEPTAFLUOROPROPANE	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.

Section 3 – 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 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
Odor: Odorless

Physical State: Gas
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 preexisting 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: Fire Extinguisher
ID Number: UN 1044
Hazard Class: 2.2

Packing Group: N/A
Labels: Non-flammable gas
Packing Instructions: 213

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

NFPA Codes:

Health:	1	Flammability:	0
Reactivity:	0	Other:	X

NMIS Codes:

Health:	1	Flammability:	0
Reactivity:	0	Protection:	X

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