

# Air Liquide Healthcare America Corporation

## MATERIAL SAFETY DATA SHEETS

DATE: 7/24/08

SUPPLIER ADDRESS: 6141 EASTON RD  
 BUILDING 3  
 PLUMSTEADVILLE, PA 18949

EMERGENCY PHONE: (215) 766-8860  
 NUMBER

### 1. CHEMICAL PRODUCT

PRODUCT NAME: OCTAFLUOROPROPANE

SYNONYMS: Perfluoropropane

### 2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient Name	Formula	CAS#	Concentration	Exposure Limits (PPM)			
				ACGIH TLV	OSHA PEL	MAC	Other STEL
OCTAFLUOROPROPANE	C3F8	76-19-7	99+%	S/A	S/A	S/A	S/A

Note: S/A = SIMPLE ASPHYXIANT

### 3. HAZARD IDENTIFICATION

\*\*\* EMERGENCY OVERVIEW \*\*\*  
 Liquid and gas under pressure.  
 Can cause rapid suffocation.  
 May cause frostbite.

#### POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: Inhalation

ACUTE EFFECTS: Material acts as a simple asphyxiant by displacing air necessary for life. Symptoms include rapid respiration, muscular incoordination, fatigue, dizziness, nausea, vomiting, unconsciousness, and death. Skin and eye irritation may occur. Pressure drop through valves and piping may cause extreme cold and frostbite on contact.

CHRONIC EFFECTS: None known

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: None known

OTHER EFFECTS OF OVEREXPOSURE: None

#### CARCINOGENICITY (US Only):

NTP - No

IARC MONOGRAPHS - No

OSHA REGULATED - No

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#### 4. FIRST AID MEASURES

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**INHALATION:** Immediately remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.

**EYE CONTACT:** Immediately flush with copious amounts of water for at least 15 minutes.

**SKIN CONTACT:** If frostbite occurs, flush affected areas with lukewarm water.

**INGESTION:** None

**IN EVENT OF EXPOSURE, CONSULT A PHYSICIAN**

**NOTE TO PHYSICIAN:** None

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#### 5. FIRE FIGHTING MEASURES

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**FLASH POINT:** Nonflammable

**AUTOIGNITION TEMPERATURE:** N/Av

**FLAMMABLE LIMITS:** Nonflammable

**LOWER:**

**UPPER:**

**EXTINGUISHING MEDIA:** Use what is appropriate for surrounding fire.

**SPECIAL FIRE FIGHTING INSTRUCTION AND EQUIPMENT:** Wear self-contained breathing apparatus and full protective clothing. Keep fire exposed cylinders cool with water spray.

**HAZARDOUS COMBUSTION PRODUCTS:** None

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Cylinder rupture may occur under fire conditions. Emits toxic fumes under fire conditions, which include hydrofluoric acid and carbonyl fluoride.

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#### 6. ACCIDENTAL RELEASE MEASURES

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**CLEAN UP PROCEDURES:** Evacuate and ventilate area. Persons involved in the control and repair of the leak should be provided with all the necessary protective equipment and be properly trained for emergency situations involving this material.

**SPECIALIZED EQUIPMENT:** None

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#### 7. HANDLING AND STORAGE

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**PRECAUTIONS TO BE TAKEN IN HANDLING:** Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

**PRECAUTIONS TO BE TAKEN IN STORAGE:** Store in well ventilated areas. Keep valve protection cap on cylinders when not in use. Store away from heat, flame, and sparks.

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#### 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

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**ENGINEERING CONTROLS:** Provide adequate general and local exhaust ventilation to avoid asphyxiation.

##### PERSONAL PROTECTION

**EYE/FACE PROTECTION:** Safety glasses

**SKIN PROTECTION:** Protective gloves to prevent contact with cold equipment.

**RESPIRATORY PROTECTION:** In case of leakage, use self-contained breathing apparatus.

**OTHER PROTECTIVE EQUIPMENT:** Safety shoes when handling cylinders.

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#### 9. PHYSICAL AND CHEMICAL PROPERTIES

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**APPEARANCE:** Colorless

**ODOR:** Sweet odor.

**PHYSICAL STATE:** Gas

**VAPOR PRESSURE:** 116 psig

**VAPOR DENSITY (AIR=1):** 6.61

**BOILING POINT (C):** -36.7

**SOLUBILITY IN WATER:** Slight

**SPECIFIC GRAVITY (H<sub>2</sub>O=1):** N/Av

**EVAPORATION RATE:** Gas

**ODOR THRESHOLD:** N/Av

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#### 10. STABILITY AND REACTIVITY

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**STABILITY:** Stable under normal storage conditions.

**CONDITIONS TO AVOID:** Storage in poorly ventilated areas. Storage near a heat

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source.

MATERIALS TO AVOID: Alkali and alkaline earth metals.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION: None

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#### 11. TOXICOLOGICAL INFORMATION

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LETHAL CONCENTRATION (LC50): NONE ESTABLISHED

LETHAL DOSE 50 (LD50): N/Ap

TERATOGENICITY: N/Ap

REPRODUCTIVE EFFECTS: N/Ap

MUTAGENICITY: N/Ap

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#### 12. ECOLOGICAL INFORMATION

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No adverse ecological effects are expected.

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#### 13. DISPOSAL CONSIDERATIONS

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WASTE DISPOSAL METHOD: Dispose of non-refillable cylinders in accordance with federal, state and local regulations. Allow gas to vent slowly to atmosphere in an unconfined area or exhaust hood. If the cylinders are the refillable type, return cylinders to supplier with any valve outlet plugs or caps secured and valve protection caps in place.

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#### 14. TRANSPORT INFORMATION

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CONCENTRATION: 99+%

DOT DESCRIPTION (US ONLY):

PROPER SHIPPING NAME: Octafluoropropane

HAZARD CLASS: 2.2 (nonflammable)

IDENTIFICATION NUMBER: UN2424

REPORTABLE QUANTITIES: None

LABELING: NONFLAMMABLE GAS

ADR/RID (EU Only): Class 2, 2A

SPECIAL PRECAUTIONS: Cylinders should be transported in a secure upright position in a well ventilated truck.

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#### 15. REGULATORY INFORMATION

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OSHA: Process Safety Management: Material is not listed in appendix A of 29 CFR 1910.119 as highly hazardous chemical.

TSCA: Material is listed in TSCA inventory.

SARA: The threshold planning quantity for material is 10,000 lbs.

EU NUMBER: 200-941-9

NUMBER IN ANNEX 1 OF DIR 67/548: Not listed in annex 1.

EU CLASSIFICATION: N/Av

R: N/Av

S: N/Av

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#### 16. OTHER INFORMATION

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OTHER PRECAUTIONS: Protect containers from physical damage. Do not deface cylinders or labels. Cylinders should be refilled by qualified producers of compressed gas. Shipment of a compressed gas cylinder which has not been filled by the owner or with his written consent is a violation of federal law (49 CFR).

ABBREVIATIONS:

N/Ap - Not Applicable

N/Av - Not Available

SA - Simple Asphyxiant

NE - None Established

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