



Material Safety Data Sheet Octafluoropropane

R-218

1. Chemical Product and Company Identification:

Company: Concorde Specialty Gases Inc.
36 Eaton Road
Eatontown, N.J. 07724 USA

Product Name: Octafluoropropane
Other/Generic Names: Perfluoropropane,
R-218, Freon 218
Product Use: Industrial Chemical

2. Composition/ Information on Ingredients:

Ingredient Name: Octafluoropropane

Trace impurities and additional material names not listed above may also appear in Section 15 towards the end of the MSDS. These materials may be listed for local "Right-to-Know" compliance and for other reasons.

3. Hazards Identification:

Emergency Overview: A colorless, odorless gas with no warning properties. Non-flammable. Avoid breathing vapors. Wear self-contained breathing or air-supplied respirator.

Potential Health Hazards

Skin: Direct contact with the liquefied material or escaping compressed gas may cause frostbite injury. Eyes: Direct contact with the liquefied material, compressed gas, may cause frostbite injury. Inhalation: This product may cause suffocation by displacing the oxygen in air.

Exposure to an oxygen deficient atmosphere (less than 19.5%) may cause dizziness, drowsiness, nausea, vomiting, diminished mental alertness, loss of consciousness and death.

Ingestion: Not applicable (gas at normal conditions). Delayed Effects: None known.

Ingredients found on one of the OSHA designated carcinogen lists are listed below.

Ingredient Name: No ingredients listed in this section.

4. First aid measures

Skin: Wash exposed area extremely thoroughly, but gently. In cases of frostbite-like injury, wash with soap and water. Contact a physician if irritation or pain persists.

Eyes: Flush eyes with copious amounts of warm water for at least 15 minutes. Contact a Physician if irritation, pain, swelling, excessive tearing, or photophobia (painful sensitiveness to strong light) persists.

Inhalation: Remove person to fresh air. If not breathing, administer artificial respiration. If breathing is difficult, administer oxygen. Obtain prompt medical attention.

Ingestion: Ingestion is not a likely route of exposure for Octafluoropropane.

Advice to Physician: No specific treatment. Treat according to symptoms present.

Tel: (732) 544-9899 Fax: (732) 544-9894 Toll Free: (800) 818-5109

Email: concorde@sfgas.com www.concordegas.com

5. Fire fighting measures

Flammable Properties: Flash Point: N/A Flash Point Method: N/A
Autoignition Temp: N/A Upper Flame Limit (volume % in air): N/A
Lower Flame Limit (volume % in air): N/A Flame Propagation Rate (Solids): N/A OSHA
Flammability Class: Non-combustible gas Extinguishing Media: If involved in a fire, use dry
chemical or carbon dioxide for small fires or water spray, fog or regular foam for large fires.
Unusual Fire and Explosion Hazards: Cylinders may explode in heat of fire. Fire may produce
irritating or poisonous gases.
Special Fire Fighting Precautions/Instructions: Wear self-contained breathing apparatus.
Cool cylinders, exposed to heat of fire, by flooding with water. Apply water from as far a
distance as possible.

6. Accidental release measures

IN CASE OF SPILL OR OTHER RELEASE

Always wear recommended personal protective equipment. Evacuate unprotected personnel.
Stay upwind. Protected personnel (see section 8) may shut off lead if without risk. Product will
destroy itself. Spills and releases may have to be reported to Federal and/or local authorities.
See section 15 regarding reporting requirements.

7. Handling and Storage

Normal Handling: Always wear recommended personal protective equipment. Observe
precautions on cylinder label. Protect cylinders from physical damage.
Storage Recommendations: Protect cylinders from physical damage, heat and sunlight.
Store in an area of low fire risk. For additional information, see Compressed Gas Association
Pamphlet, "Safe Handling of Compressed Gases in Containers", 7th Edition, 1984.

8. Exposure controls and personal protection

Engineering Controls: General mechanical ventilation
Personal Protective Equipment Skin Protection: Rubber gloves and coveralls.
Eye Protection: Safety glasses.
Respiratory Protection: Self-contained breathing apparatus or air supplied respirator if needed.
Note that an accidental release of R-218 may reduce the oxygen content of the local atmosphere
below 19.5% (see section 3). Additional Recommendations: None
Exposure Guidelines
No OSHA PEL or ACGIH TLV has been established for this substance.
Limit established by Workplace Environmental Exposures Level (AIHA) Biological Exposure
Index (ACGIH)
Other Exposure Limits for Potential Decomposition Products: None

9. Physical and chemical properties:

Appearance: Colorless gas

Physical State: Gas

Molecular Weight: 188.0

Chemical Formula: C₃F₈

Odor: Odorless

Specific Gravity (also called vapor density) (Air=1): 6.65

10. Stability and reactivity

Chemical Stability: Stable

Conditions to avoid: Cylinders should not be exposed to temperatures in excess of 125°F (52°C).

Incompatibility (Materials to Avoid): Alkali and alkaline earth metals - powdered aluminum, zinc, etc.

Reactivity: A) Hazardous Decomposition Products: Octafluoropropane can undergo thermal decomposition forming hydrogen fluoride. B) Hazardous Polymerization: Will not occur

Boiling Point (At 1 atm): -34.1 °F (-36.7 °C)

Specific Gravity (also called vapor density) (Air =1): 6.65

Freezing Point/ Melting Point: -233.8 °F (-147.7 °C)

Vapor Pressure: (At 70 °F (21.1 °C)): 99.4 psig

Gas Density (At 70 °F (21.1 °C) and 1 atm): 0.498 lb/ft³

Solubility in Water (Vol./Vol. at 32 °F (0 °C) and 1 atm): Not soluble

11. Toxicological Information

LC₅₀ (Inhalation): Simple Asphyxiant; four-hour exposure to 11% Octafluoropropane produced no deaths in rats. Weight gain in female rats was slightly depressed.

LD₅₀ (Oral): Not applicable

LD₅₀ (Dermal): Not applicable

Skin Corrosivity: Octafluoropropane is not corrosive to the skin.

Additional Notes: Dogs that were exposed to 30% Octafluoropropane or less did not exhibit cardiac sensitization. Two out of eight dogs that were exposed to 40% Octafluoropropane exhibited some signs of cardiac sensitization.

Octafluoropropane at concentrations of up to 80% was not mutagenic in a bacterial (Salmonella) assay.

12. Ecological Information

Not Applicable (inorganic)

13. Disposable Considerations: RCRA

Unused Product/ Empty Container: Return container and unused product to supplier. Do not attempt to dispose of residual or unused quantities.

Disposal Information: For emergency disposal, secure the cylinder and slowly discharge gas to the atmosphere in a well-ventilated area or outdoors.

14. Transportation Information

US DOT SHIPPING NAME: Octafluoropropane

US DOT Hazard Class: Class 2.2 – Non-flammable gas

US DOT ID Number: UN2424

C.A.S Registry No.: 76-19-7

For additional information on shipping regulations regarding this material, contact Concorde Specialty Gases, Inc.

15. Regulations

Toxic Substances Control Act (TSCA)

TSCA Inventory Status: Material is listed on the TSCA inventory.

Other TSCA Issues: None

Sara Title III/CERCLA

“Reportable Quantities” (Rqs) and/or “Threshold Planning Quantities” (TPQ’s) do not exist for the following ingredients: Octafluoropropane

Ingredient Name Sara, CERCLA RZ (IB) Sara, EHA TPQ (IB)

No ingredients listed in this action.

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center: 1-800-424-8802 and to your local Emergency Planning Committee.

Section 311/312 Hazard Class Reporting: Pressure.

Section 313 Toxic Chemical Release Reporting (40 CFR Part 372)

Octafluoropropane does not require reporting under Section 313.

CAS numbers and weight percents are found in Section 9 & 14.

Ingredient Name: “No ingredients listed in this section”

Additional Regulatory Information: None.

16 Other information:

For Hazardous Materials Emergency (Spill, Leak, Fire, Exposure or accident)

Call Chemtrec at (800) 424-9300. Outside the U.S. call (703) 527-3887

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This information was last updated May 2011.