



Material Safety Data Sheet

FC04-08 2-(Perfluorooctyl) Ethyl Alcohol

Revised 12-August-2009

1. PRODUCT AND COMPANY IDENTIFICATION

Material Identification

Product name: FC04-08
Chemical name: 2-(Perfluorooctyl) ethyl alcohol
1H, 1H, 2H, 2H-Heptadecafluorodecan-1-ol
Chemical formula: HOCH₂CH₂(CF₂CF₂)₄F
C₁₀H₅F₁₇O

Company Identification

Distributor: **Fluoryx, Inc.**
1933 Davis St., Suite 293
San Leandro, CA 94577
USA
Emergency call: +86-1346-4812437
+1-510-329-2811

2. COMPOSITION AND INFORMATION ON INGREDIENTS

Material	Molecular Weight	Weight Percent	EINECS #	CAS #
2-(Perfluorooctyl) ethyl alcohol	464.12	> 98 %	678-39-7	678-39-7

3. HAZARDS IDENTIFICATION

Emergency Overview:

Potential Effects of Exposure:

General: Based on animal experiments, gross overexposure may cause abnormal liver or kidney function as detected by laboratory tests.

Skin Contact: May cause skin irritation with discomfort or rash. Data to evaluate the skin permeation hazard of this compound are insufficient. There are no reports of human sensitization.

Eye Contact: May cause eye irritation with discomfort, tearing, or blurring of vision.

Inhalation: Inhalation of spray or mist may cause nasal, throat, or lung irritation. Inhalation of large amounts of

respirable particles may be toxic to the lungs. Symptoms may be modest initially, followed in hours by severe shortness of breath requiring prompt medical attention.

Carcinogenicity Information:

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

4. FIRST AID MEASURES**Oral Exposure:**

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure:

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure:

In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure:

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

5. FIRE FIGHTING MEASURES**Flammable Properties**

Flash point: 110 °C

Method: Closed cup

Autoignition temp: N/A

Flammability: N/A

Extinguishing Media:

Use fire-fighting measures which suit the environment and take into account other materials which may be involved. In general, water-based extinguishers should not be used for fires involving organic materials. Use carbon dioxide or dry powder.

Protective Equipment:

Wear self-contained breathing apparatus and protective clothing.

Hazardous Products of Combustion May Include:

Carbon dioxide, carbon monoxide, hydrogen fluoride, toxic gases or particles may be formed during combustion. These products may cause severe eye, nose, throat, and lung irritation or toxic effects.

Fire Fighting Instructions:

Evacuate personnel to a safe area. Wear self-contained breathing apparatus. Avoid breathing decomposition products.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions:**

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of

dust.

Personal Protection:

Wear protective equipment including rubber gloves, and eye protection. Evacuate personnel to safe areas.

Environmental Protection:

Take precautions to ensure product does not contaminate the ground or enter the drainage system. Collection

Spill Clean-Up:

Mix with vermiculite or proprietary absorbent material and transfer to sealed containers for disposal. Flush spill area with water.

7. HANDLING AND STORAGE

Safe Handling:

Avoid contact with eyes and skin. Avoid contact with clothing. Avoid formation of respirable particles. Do not breathe vapors or spray mist. Wash hands immediately after handling the product.

Advice on protection against fire and explosion: do not spray on a naked flame or any other incandescent material.

Storage:

Store in tightly sealed containers in a cool, well-ventilated place. Do not store or consume food, drink, or tobacco in areas where they may come in contact. Keep container tightly closed. Keep away from open flames and heated surfaces above 200 °C.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls:

Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment

Eye/face protection:

Chemical safety goggles.

Respirators:

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks.

Hand protection:

Compatible chemical-resistant gloves.

General Hygiene Measures:

Wash thoroughly after handling. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Molecular Weight

464.12

pH

N/A

Boiling Point

113 °C @ 10 mm Hg

Melting Point

47 °C

Vapor Pressure	N/A
Vapor Density	> 1 (air = 1)
Saturated Vapor Conc.	N/A
Density	1.692 g/cm ³
Odor Threshold	N/A
Flash Point	110 °C (closed cup)
Explosion Limits	N/A
Flammability	N/A
Refractive Index	1.3086
Form	Solid/waxy
Color	White
Water Solubility	N/A

N/A = not available

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable at normal temperatures and storage conditions.
Incompatibility with Other Materials:	None reasonably foreseeable.
Decomposition:	Hazardous decomposition products including carbon dioxide, carbon monoxide, hydrogen fluoride, toxic gases or particles may be formed during combustion. These products may cause severe eye, nose, throat, and lung irritation or toxic effects.
Polymerization:	Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Route Of Exposure

Skin contact:	May cause skin irritation.
Skin absorption:	May be harmful if absorbed through the skin.
Eye contact:	May cause eye irritation.
Inhalation:	Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion:	May be harmful if swallowed.

Signs And Symptoms Of Exposure:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
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12. ECOLOGICAL INFORMATION

No data available.

General:	Take care to prevent chemicals from entering the ground, water courses or drainage systems.
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13. DISPOSAL CONSIDERATIONS

Disposal Operations:	Contact a licensed professional waste disposal
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service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14. TRANSPORTATION INFORMATION

Mode	DOT/IMDG/IATA
UN Number	None. Non-hazardous for transport.
Class (Subsidiary)	None. Non-hazardous for transport.
Proper Shipping Name	None. Non-hazardous for transport.
Hazard Label (Subsidiary)	None. Non-hazardous for transport.
Packing Group	None. Non-hazardous for transport.
Shipping Hazard Label	None. Non-hazardous for transport.

15. REGULATORY INFORMATION

United States Regulatory Information

SARA Listed: No

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

16. OTHER INFORMATION

Legal Disclaimer:

For R&D use only. Not for drug, household, or other uses. The previous information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations or mixtures, one must confirm that no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment. Unless noted to the contrary, the technical information applies only to pure product.

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End of MSDS