



Material Safety Data Sheet

FC21-08 Perfluorooctyl Propyl Epoxide

Revised 15-September-2011

1. PRODUCT AND COMPANY IDENTIFICATION

Material Identification

Product name: FC21-08
Chemical name: Perfluorooctyl Propyl Epoxide
(2,2,3,3,4,4,5,5,6,6,7,7,7-Heptadecafluorooctyl)oxirane
Chemical formula: CH₂(O)CHCH₂(CF₂CF₂)₄F
C₁₁H₅F₁₇O

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/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	EINECS	TSCA Listed	Molecular Wt
Perfluorooctyl Propyl Epoxide	38565-53-6	254-006-5	Not available	476.13

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

OSHA Hazards No known OSHA hazards

HMIS Rating

Health: 0
Flammability: 0
Reactivity: 0

NFPA Rating

Health: 0
Flammability: 0
Reactivity: 0

For additional information on toxicity, please refer to Section 11.

4. FIRST AID MEASURES

Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Skin Contact:	Flush skin with soap and water after contact. Wash contaminated clothing before reuse.
Eye Contact:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
Ingestion:	If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5. FIRE FIGHTING MEASURES

Flammable Properties	
Flash point:	None
Method:	Closed cup.
Hazardous Decomposition Products:	Hazardous decomposition products include carbon dioxide, carbon monoxide, and 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.
Extinguishing Media:	Water spray, alcohol resistant foam, dry chemical, CO ₂ .
Fire Fighting Instructions:	Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Avoid breathing toxic decomposition products.

6. ENVIRONMENTAL SECTION

No data available.
 General: Do not discharge into drains or rivers.

7. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid breathing vapors, mist or gas.
Environmental Precautions:	Do not discharge into drains or rivers. Contain the spillage using bunding.
Clean-Up Procedures:	Absorb into dry earth or sand. Transfer to a closable, labeled salvage container for disposal by an appropriate method.

8. HANDLING AND STORAGE

Handling Requirements:	Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. Use only in a fume hood.
Storage Conditions:	Store in cool, well-ventilated area. Keep container tightly closed.

Suitable Packaging: Must only be kept in original packaging.

9. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Engineering measures: Ensure there is sufficient ventilation of the area.

Personal Protective Equipment

Eye/face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Respirators: Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protective clothing: Where there is potential for skin contact have available and wear as appropriate impervious gloves, apron, pants, and jacket.

Hand protection: Protective gloves.

10. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	87 °C @ 19 mm Hg
Melting Point	Not measured
Flash Point	> 113 °C (closed cup)
Molecular Weight	476.13 g/mol
Density	1.712 g/mL @ 25 °C
Solubility in Water	Negligible
pH	Not measured
Refractive Index	Not measured
Odor	Not measured
Form	Clear liquid
Color	Colorless liquid

11. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Materials to Avoid: Strong oxidizing agents.

Hazardous Decomposition Products: In combustion, emits toxic fumes including carbon monoxide, carbon dioxide, and hydrogen fluoride.

Hazardous Polymerization Reactions: Will not occur.

12. TOXICOLOGICAL INFORMATION

Acute toxicity No data available

Skin corrosion/irritation No data available

Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	
IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure (GHS)	No data available
Specific target organ toxicity - repeated exposure (GHS)	No data available
Aspiration hazard	No data available
Potential health effects	
Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

13. ECOLOGICAL INFORMATION

No data available.

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

14. DISPOSAL CONSIDERATIONS

Disposal Operations: Offer surplus and non-recyclable solutions to a licensed disposal company. Observe all federal, state, and local environmental regulations.

Disposal of Packaging: Dispose of as special waste in compliance with local and national regulations. Observe all federal, state and local environmental regulations.

The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

15. TRANSPORTATION INFORMATION

DOT

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

16. REGULATORY INFORMATION

OSHA Hazards

No known OSHA hazards

DSL Status

This product contains the following components that are not on the Canadian DSL nor NDSL lists.

(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-Heptadecafluorononyl)oxirane; CAS-No. 38565-53-6

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-Heptadecafluorononyl)oxirane; CAS-No. 38565-53-6

New Jersey Right To Know Components

(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-Heptadecafluorononyl)oxirane; CAS-No. 38565-53-6

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

17. 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