

## FC21-06b

## 3-[2-(Perfluorohexyl)ethoxy]-1,2-Epoxypropane

Revised 16-November-2016

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**1. PRODUCT AND COMPANY IDENTIFICATION**


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**Product Identifier**

<b>Product Name</b>	3-[2-(Perfluorohexyl)ethoxy]-1,2-epoxypropane
<b>Catalog Number</b>	FC21-06b
<b>Brand</b>	Fluoryx Labs
<b>CAS no.</b>	122193-68-4

**Relevant identified uses of the Substance or mixture and uses advised against**

Identified uses:	Laboratory chemicals; manufacture of substances
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**Details of the supplier of the safety data sheet**


Company	<b>Fluoryx Labs</b> 3650 Research Way, #22 Carson City, NV 89706 USA +1 (510) 329-9149 (Telephone) +1 (510) 686-8799 (Fax)
<b>Emergency call:</b>	+01-813-248-0585 (International) +1-800-255-3924 (USA)

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**2. HAZARDS IDENTIFICATION**


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**Emergency Overview**

<b>OSHA Hazards</b>	Combustible liquid
<b>GHS Classification</b>	Flammable liquid (Category 4)
<b>GHS Label elements, including precautionary statements</b>	
Pictogram	

Signal word

Warning

**Hazard statement(s)**

H226	Flammable liquid and vapor
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

**Precautionary statement(s)**

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking
P260	Do not breathe dust/fume/gas/mist/vapors/spray.

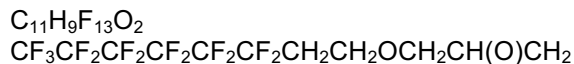
P305+P351+P338

IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

**Synonyms** Oxirane, [[[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)oxy]methyl]-; Perfluorohexylethoxyepoxypropane; 3-[2-(Tridecafluorohexyl)ethoxy]-1,2-epoxypropane; Glycidyl(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ether; 2-[(3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctyloxy)methyl]oxirane; 3-(3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctyloxy)-1,2-epoxypropane

**Chemical formula**



**Components**

Material	Molecular Weight	CAS #	EC #	TSCA
3-[2-(Perfluorohexyl)ethoxy]-1,2-epoxypropane	420.17	122193-68-4	None	Not Listed

### 4. FIRST AID MEASURES

**If inhaled** If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact** Wash off with soap and plenty of water.

**In case of eye contact** Flush eyes with water as a precaution.

**If swallowed** Never give anything by mouth to an unconscious person. Rinse mouth with water.

### 5. FIREFIGHTING MEASURES

**Suitable extinguishing media** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters** Wear self-contained breathing apparatus for fire fighting.

**Hazardous combustion products** Hazardous decomposition products formed under fire conditions - carbon oxides, hydrogen fluoride, carbonyl fluoride.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** Avoid inhalation of vapor, mist, dust, or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**Environmental precautions** Prevent further leakage or spillage. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods for cleaning up** Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

### 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

Normal measures for preventive fire protection. Avoid contact with the substance. Provide appropriate exhaust ventilation at places where dust, mist or vapors are formed. Do not handle in a confined space.

**Conditions for Safe Storage**

Store in dry and cool place. Keep away from heat, sparks and flames. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

**Respiratory protection**

Use only in a chemical fume hood or local exhaust ventilation, and process enclosure if necessary to control exposure. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection**

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**

Impervious clothing. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**

Form Liquid, clear

Color Colorless

**Safety Data**

pH No data available

Melting Point/Freezing Point No data available

Boiling Point 219 °C @ 760 mm Hg

Flash Point	93 °C (closed cup)
Ignition Temperature	No data available
Auto-ignition Temperature	No data available
Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
Thermal Decomposition Temperature	No data available
Vapor Pressure	0.182 mm Hg at 25 °C
Density	1.57 g/mL @ 20 °C
Water Solubility	Negligible
Partition Coefficient ( <i>n</i> -octanol/water)	No data available
Relative Vapor Density (Air = 1)	> 1
Odor	No data available
Odor Threshold	No data available
Evaporation Rate	No data available
Refractive index	1.33 @ 20 °C

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**10. STABILITY AND REACTIVITY**

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<b>Storage stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	Auto-polymerization will not occur. Reacts exothermically with amines.
<b>Conditions to avoid</b>	Keep away from open flames and heated surfaces.
<b>Materials to avoid</b>	Strong acids and bases.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions - carbon oxides, hydrogen fluoride, carbonyl fluoride.

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**11. TOXICOLOGICAL INFORMATION**

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<b>Acute toxicity</b>	No data available.
<b>Skin corrosion/irritation</b>	No data available.
<b>Serious eye damage/eye irritation</b>	No data available.
<b>Respiratory or skin sensitization</b>	No data available.
<b>Germ cell mutagenicity</b>	No data available.
<b>Carcinogenicity</b>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
<b>Reproductive toxicity</b>	No data available

**Specific target organ toxicity (Globally Harmonized System)**

<b>Single exposure</b>	No data available
<b>Repeated exposure</b>	No data available
<b>Aspiration Hazard</b>	No data available
<b>Potential Health Effects</b>	
<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eyes irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Signs and Symptoms of Exposure</b>	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
<b>Synergistic Effects</b>	No data available
<b>Additional Information</b>	No data available

**12. ECOLOGICAL INFORMATION**

<b>Toxicity</b>	No data available
<b>Persistence and Degradability</b>	Does not readily degrade.
<b>Bioaccumulative Potential</b>	No data available
<b>Mobility in Soil</b>	No data available
<b>PBT and vPvB Assessment</b>	No data available
<b>Other adverse effects</b>	No data available

**13. DISPOSAL CONSIDERATIONS**

<b>Product</b>	Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber. Contact Fluoryx to return unused product.
<b>Contaminated packaging</b>	Dispose of as unused product.

**14. TRANSPORTATION INFORMATION**

<b>DOT (US)</b>	NA1993 Class CBL Proper shipping name: Combustible Liquid, n.o.s. (3-[2-(Perfluorohexyl)ethoxy]-1,2-epoxypropane) Packing group III Marine pollutant: No Poison inhalation hazard: No Labeling: None
<b>IMDG</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods

**15. REGULATORY INFORMATION**

<b>OSHA Hazards</b>	No known OSHA hazards
<b>TSCA Status</b>	Not on the inventory.
<b>DSL Status</b>	Not listed

<b>SARA 302 Components</b>	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
<b>SARA 313 Components</b>	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.
<b>SARA 311/312 Hazards</b>	No SARA hazards.
<b>Massachusetts Right To Know Components</b>	No components are subject to the Massachusetts Right to Know Act.
<b>Pennsylvania Right To Know Components</b>	No components are subject to the Pennsylvania Right to Know Act.
<b>New Jersey Right To Know Components</b>	No components are subject to the New Jersey Right to Know Act.
<b>California Prop. 65 Components</b>	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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**16. OTHER INFORMATION**

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<b>Further information:</b>	<p>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.</p> <p>To our actual knowledge, the information contained herein is accurate as of the date of this document. However, neither Fluoryx, nor any of its affiliates makes any warranty, express or implied, or accepts any liability in connection with this information or its use. This information is for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right. The user alone must finally determine suitability of any information or material for any contemplated use, the manner of use and whether any patents are infringed. This information gives typical properties only and is not to be used for specification purposes.</p>
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End of SDS