

FC18-06

2-(Perfluorohexyl)ethyl Thiol

Revised 21-November-2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product name	2-(Perfluorohexyl)ethyl thiol
Catalog number	FC18-06
Brand	Fluoryx Labs
CAS number	34451-26-8

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	Fluoryx Labs 3650 Research Way, #22 Carson City, NV 89706 USA +1 (510) 329-9149 (Telephone) +1 (510) 686-8799 (Fax) www.fluoryx.com
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Emergency Call (ChemTel)

+01-813-248-0585 (International)
+1-800-255-3924 (USA)

3. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2A), H315
 Eye irritation (Category 2A), H319
 Specific target organ toxicity – single exposure (Category 3), respiratory system, H335

GHS Label Elements, Including Precautionary Statements

Pictogram	GHS07: Exclamation mark
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Signal Word	Warning; Stench
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Hazard statements	Causes skin irritation Causes serious eye irritation May cause respiratory irritation.
H315	
H319	
H335	

Precautionary phrases	Avoid breathing dust, fume, gas, mist, vapors, spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye
P261	
P264	
P271	
P280	

P305 + P351 + P338

protection/face protection.

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

2. COMPOSITION AND INFORMATION ON COMPONENTS

Synonyms	1 <i>H</i> ,1 <i>H</i> ,2 <i>H</i> ,2 <i>H</i> -Perfluorooctanethiol; 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluoro-1-octanethiol; 1 <i>H</i> ,1 <i>H</i> ,2 <i>H</i> ,2 <i>H</i> -Perfluoro-1-octanethiol; 1 <i>H</i> ,1 <i>H</i> ,2 <i>H</i> ,2 <i>H</i> -Perfluorooctyl mercaptan
Formula	C ₈ H ₅ F ₁₃ S CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CH ₂ CH ₂ SH
Molecular Weight	380.18 g/mol
CAS Number	34451-26-8
EC Number	None

Hazardous Components

Component	Classification	Concentration
2-(Perfluorohexyl)ethyl thiol	Skin Irrit. 2A; Eye Irrit. 2A; STOT SE 3; H315; H319; H335	≤100%

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

Description of First Aid Measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for 15 minutes. Consult a doctor.
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most Important Symptoms and Effects, Both Acute and Delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indications of Any Immediate Medical Attention

No data available.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Special Hazards Arising from the Substance	Hazardous decomposition products formed under fire conditions - carbon oxides, hydrogen fluoride.
Special Protective Equipment for Firefighters	Wear self contained breathing apparatus for fire fighting.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Avoid breathing
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vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental Precautions

Do not let product enter drains.

Methods for Cleaning Up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Normal measures for preventive fire protection. For precautions see section 2.2.

Conditions for Safe Storage, Including any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handle and store under inert gas. Air sensitive.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with Workplace Control Parameters Contains no substances with occupational exposure limit values.

Appropriate Engineering Controls

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

Personal Protective Equipment

Eye/face 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 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.

Body protection

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

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (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).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	Clear liquid
Color	Colorless

Safety Data

pH	No data available
Melting point/freezing point	-26 °C
Boiling point	158 °C @ 760 mm Hg
Flash point	> 105 °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	No data available
Density	1.62 g/mL @ 20 °C
Water solubility	Insoluble
Partition coefficient (<i>n</i> -octanol/water)	No data available
Relative vapor density (air = 1)	> 1
Odor	Stench; strong mercaptan/thiol odor
Odor threshold	Very low
Evaporation rate	No data available
Oxidizing properties	No data available

10. STABILITY AND REACTIVITY

Reactivity	Slowly oxidizes in the presence of oxygen to produce disulfides.
Chemical Stability	Stable in sealed containers under dry, inert atmosphere.
Possibility of Hazardous Reactions:	No data available. Store under inert (dry) atmosphere.
Conditions to Avoid	Exposure to oxygen.
Incompatible Materials	Avoid strong oxidizing agents, water, alcohols, and strong acids.
Hazardous Decomposition Products	In combustion, emits toxic fumes including carbon oxides, sulfur oxides, and hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION**Acute Toxicity**

Oral LD50	No data available
Inhalation LC50	No data available
Dermal LD50	No data available
Other information on acute toxicity	No data available

Skin Corrosion/Irritation

Not corrosive

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
Teratogenicity	No data available
Specific Target Organ Toxicity (Globally Harmonized System)	
Single exposure	No data available
Repeated exposure	No data available
Aspiration Hazard	No data available
Synergistic Effects	No data available
Additional Information	RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Toxicity	No data available
Persistence and Degradability	Does not readily degrade.
Bioaccumulative Potential	No data available
Mobility in Soil	No data available
PBT and vPvB Assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other Adverse Effects	No data available

13. DISPOSAL CONSIDERATIONS

Product	Offer non-recyclable solutions to a licensed disposal company. Contact Fluoryx to return unused product.
Contaminated Packaging	Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)	
UN-number	UN 3334
Class	9
Proper shipping Name	Aviation regulated liquid, n.o.s. (1-Octanethiol, 3,3,4,4,5,5,6,6,7,7,8,8,8-, tridecafluoro-)
Marine pollutant	No
Poison Inhalation Hazard	No
IMDG	Not dangerous goods
IATA	
UN-number	UN 3334
Class	9
Packing group	III
Proper shipping Name	Aviation regulated liquid, n.o.s. (1-Octanethiol, 3,3,4,4,5,5,6,6,7,7,8,8,8-, tridecafluoro-)

15. REGULATORY INFORMATION

TSCA Inventory	Not listed.
DSL Status	Not on the Canadian DSL list.
SARA 302 Components	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	SARA 313: 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	Acute health hazard
Massachusetts Right To Know Components	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components	1-Octanethiol, 3,3,4,4,5,5,6,6,7,7,8,8,8-, tridecafluoro-CAS-No. 34451-26-8
New Jersey Right To Know Components	1-Octanethiol, 3,3,4,4,5,5,6,6,7,7,8,8,8-, tridecafluoro-CAS-No. 34451-26-8
California Prop. 65 Components	This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

Full text of H-Statements Referred to Under Sections 2 and 3.

Eye Irrit.	Eye irritation
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Skin Irrit.	Skin irritation
STOT SE	Specific target organ toxicity - single exposure

HMIS Rating

Health hazard	2
Chronic health hazard	
Flammability	0
Physical hazard	0

NFPA Rating

Health hazard	2
Fire hazard	0
Reactivity hazard	0

Further Information

For industrial 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 SDS