

FC12-E10

1-(Perfluorodecyl)ethane

Revised 30-January-2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product name	1-(Perfluorodecyl)ethane
Catalog number	FC12-E10
Brand	Fluoryx Labs
CAS number	154478-87-2

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Identified uses	Laboratory chemicals. Synthesis 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)

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture**GHS classification in accordance with 29 CFR 1910 (OSHA HCS)**

Skin irritation (Category 2), 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
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Hazard statement(s)	
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H315	Causes skin irritation.
H320	Causes eye irritation.
H335	May cause respiratory irritation.

Precautionary statement(s)	
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P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.

Hazards Not Otherwise Classified (HNOC) or Not Covered by GHS - none

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Synonyms	1H,1H,1H,1H,2H,2H-Heneicosafuorododecane; 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-Henicosafuorododecane; Perfluorodecyl ethane
Formula	CH ₃ CH ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₃ C ₁₂ H ₅ F ₂₁
Molecular Weight	548.135 g/mol
CAS Number	154478-87-2
EC Number	None

Hazardous Components

Component	Classification	Concentration
1-(Perfluorodecyl)ethane	Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H315, H320, 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. FIREFIGHTING 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 and hydrogen fluoride.

Advice for Firefighters

Wear self contained breathing apparatus for fire fighting.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Use personal protective equipment. Avoid breathing 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. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Precautions for Safe Handling**

Avoid contact with skin and eyes. Avoid formation of mist or respirable particles. Provide appropriate exhaust ventilation at places where mist or vapors are formed. Normal measures for preventive fire protection. Keep away from open flames and heated surfaces above 200 °C (392 °F).

Conditions for Safe Storage

Store in cool place. 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.

Specific End Use(s)

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

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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

Engineering Controls

Do not aerosolize or spray. Prevent leaks in high-pressure systems that could create fine mists.

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

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. 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	Solid (< 26 °C), liquid (> 26 °C)
Color	Colorless

Safety Data

pH	No data available
Melting point/freezing point	26 °C
Boiling point	188 °C at 760 mm Hg
Flash point	> 100 °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	> 200 °C
Vapor pressure	No data available
Density	1.71 g/mL @ 27 °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
Viscosity	No data available
Oxidizing properties	No data available

10. STABILITY AND REACTIVITY

Reactivity	No data available
Chemical Stability	Stable in sealed containers.
Possibility of Hazardous Reactions:	No data available.
Conditions to Avoid	Keep away from open flames and heated surfaces

above 200 °C (392 °F).

Incompatible Materials

Avoid strong oxidizing agents and strong bases.

Hazardous Decomposition Products

Decomposition temperature > 200 °C. Hazardous decomposition products formed under fire conditions - carbon 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

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 (Globally Harmonized System)

Single exposure

Inhalation – may cause respiratory irritation

Repeated exposure

No data available

Aspiration Hazard

No data available

Signs and Symptoms of Exposure

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

Synergistic Effects

No data available

Additional Information

RTECS: HD8700000

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

No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORTATION INFORMATION

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. REGULATORY INFORMATION

TSCA Status	Not on the inventory.
DSL Status	Not listed on the Canadian NDSL list.
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	Acute health hazard
Massachusetts Right to Know Components	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right to Know Components	No components are subject to the Pennsylvania Right to Know Act.
New Jersey Right to Know Components	No components are subject to the New Jersey Right to Know Act.
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.

16. OTHER INFORMATION**Full Text of H-Statements Referred to Under Sections 2 and 3.**

Eye Irrit.	Eye irritation.
H315	Causes skin irritation.
H320	Causes eye irritation.
H335	May cause respiratory irritation.
Skin Irrit.	Skin irritation.
STOT SE	Specific target organ toxicity - single exposure.

HMIS Rating

Health hazard	1
Flammability	0
Physical hazards	0

NFPA Rating

Health hazard	1
Fire	0
Reactivity hazard	0

Further Information 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