

## FC08-14

*n*-Perfluorohexane

Revised 16-November-2016

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**1. PRODUCT AND COMPANY IDENTIFICATION**


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**Product Identifier**

<b>Product Name</b>	<i>n</i> -Perfluorohexane
<b>Catalog Number</b>	FC08-14
<b>Brand</b>	Fluoryx Labs
<b>CAS no.</b>	355-42-0

**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)

**Emergency call:**

+01-813-248-0585 (International)

+1-800-255-3924 (USA)

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**2. HAZARDS INFORMATION**


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**Emergency Overview****GHS Classification**

Skin irritation (Category 2)  
Eye irritation (Category 2A)  
Specific target organ toxicity - single exposure  
(Category 3)

**GHS Label elements, including precautionary statements**

Pictogram  
Signal word



Warning

**Hazard statement(s)**

H315  
H319  
H335

Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.

**Precautionary statement(s)**

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/  
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.

**Hazards not otherwise classified (HNOC) or not covered by GHS - none**

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

<b>Synonyms</b>	Perfluorohexane; Perfluorinated- <i>n</i> -hexane; Tetradecafluorohexane; 1,1,1,2,2,3,3,4,4,5,5,6,6-tetradecafluorohexane; PFH; Fluorinert FC-72 <sup>®</sup> ; Perflexane <sup>®</sup> ; AF 0150 <sup>®</sup> ; Flutec PP1 <sup>®</sup>
<b>Chemical formula</b>	$n\text{-C}_6\text{F}_{14}$ $\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_3$
<b>Molecular weight</b>	338.04 g/mole
<b>CAS No.</b>	355-42-0
<b>EC No.</b>	206-585-0

#### Hazardous components

Component	Classification	Concentration
Tetradecafluorohexane	Skin Irrit. 2; 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

<b>General advice</b>	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
<b>If inhaled</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>In case of skin contact</b>	Wash off with soap and plenty of water. Consult a physician.
<b>In case of eye contact</b>	Flush eyes with water as a precaution. Consult a physician.
<b>If swallowed</b>	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 5. FIREFIGHTING MEASURES

<b>Suitable extinguishing media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Special protective equipment for firefighters</b>	Wear self-contained breathing apparatus for fire fighting.
<b>Hazardous combustion products</b>	Hazardous decomposition products formed under fire conditions - carbon oxides, hydrogen fluoride.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Use personal protective equipment. Avoid inhalation
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of vapor, mist, dust, or gas. Ensure adequate ventilation. Vapors can accumulate in low areas. Evacuate personnel to safe areas.

**Environmental precautions**

Do not let product enter drains. Discharge into the environment must be avoided.

**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.

**Conditions for Safe Storage**

Keep container tightly closed in a dry and well-ventilated place.

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

**Respiratory protection**

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.

Full contact

Material: Nitrile rubber  
 Minimum layer thickness: 0.4 mm  
 Break through time: 480 min  
 Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

Splash protection

Material: Nitrile rubber  
 Minimum layer thickness: 0.11 mm  
 Break through time: 164 min  
 Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Data source

KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an

**Eye protection**

approval for any specific use scenario.

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, 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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**


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**Appearance**

Form	Clear liquid
Color	Colorless

**Safety Data**

pH	No data available
Melting Point/Freezing Point	-81 °C
Boiling Point	57 °C @ 760 mm Hg
Flash Point	> 110 °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	1.669 g/mL @ 25 °C
Water Solubility	Low; 10 ppm @ 25 °C
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

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**10. STABILITY AND REACTIVITY**


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**Storage stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

Polymerization will not occur.

**Conditions to avoid**

Keep away from open flames and heated surfaces above 200 °C (392 °F).

**Materials to avoid**

Strong oxidizing agents.

**Hazardous decomposition products**

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

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**11. TOXICOLOGICAL INFORMATION**


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**Acute toxicity**

Oral LD50  
 Inhalation LC50  
 Dermal LD50  
 Other information on acute toxicity

LD50 Oral - rat - > 5,000 mg/kg  
 No data available  
 No data available  
 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  
 Repeated exposure

Inhalation - may cause respiratory irritation.  
 No data available

**Aspiration Hazard**

No data available

**Potential Health Effects**

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eyes

Causes eyes irritation.

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.

**Synergistic Effects**

No data available

**Additional Information**

RTECS: MO4310000

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**12. ECOLOGICAL INFORMATION**

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**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**

<b>Product</b>	Offer non-recyclable solutions to a licensed disposal company. Contact Fluoryx to return unused product.
<b>Contaminated packaging</b>	Dispose of as unused product.

**14. TRANSPORTATION INFORMATION**

<b>DOT (US)</b>	Not dangerous goods
<b>IMDG</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods

**15. REGULATORY INFORMATION**

<b>OSHA Hazards</b>	Irritant
<b>TSCA Status</b>	On the inventory or in compliance with the inventory.
<b>DSL Status</b>	This product contains the following components listed on the Canadian NDSL list: Hexane, tetradecafluoro- CAS-No. 355-42-0
<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>	Acute health hazard.
<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>	Tetradecafluorohexane; CAS-No. 355-42-0
<b>New Jersey Right To Know Components</b>	Tetradecafluorohexane; CAS-No. 355-42-0
<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.

**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 Classification**

Health Hazard:	2
Flammability:	0
Physical hazards:	0

**NFPA Rating**

Health Hazard:	2
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