

FC04-05M

1H,1H-Perfluorohexan-1-ol

Revised 16-December-2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name	1H,1H-Perfluorohexan-1-ol
Catalog Number	FC04-05M
Brand	Fluoryx Labs
CAS Number	423-46-1

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)

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	
Signal word	Warning

Hazard statement(s)

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.
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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/ protective clothing/ 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.
P321	Specific treatment (see supplemental first aid instructions on this label).
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.

3. COMPOSITION AND INFORMATION ON COMPONENTS

Synonyms	2,2,3,3,4,4,5,5,6,6,6-Undecafluoro-1-hexanol 1H,1H-Perfluorohexan-1-ol 1H,1H-Perfluorohexane-1-ol 5:1 FTOH 2,2,3,3,4,4,5,5,6,6,6-Undecafluorohexan-1-ol 1H,1H-Perfluorohexan-1-ol 2,2,3,3,4,4,5,5,6,6,6-Undecafluorohexan-1-ol,
Formula	C ₈ H ₃ F ₁₁ O
Molecular weight	300.07
CAS number	423-46-1
EC number	None

Hazardous components

Material	Classification	Concentration
1H,1H-Perfluorohexan-1-ol	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

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled	If breathed in, move person into fresh air. 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 thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. 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

Indication of any immediate medical attention and special treatment needed - no data available

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishing media appropriate for surrounding fire.

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.

Further Information:

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Vapors may accumulate in low areas, displacing oxygen.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Take up large spills with pump or vacuum and finish with dry chemical absorbent. Use explosion-proof equipment. Take up small spills with dry chemical absorbent. Sweep or shovel spills into appropriate container for disposal. Ventilate area.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Conditions for safe storage

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

8. EXPOSURE CONTROLS AND 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	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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	130-131 °C @ 760 mm Hg
Flash Point	No data available
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
Vapor Density	>1 (air = 1)
Density	1.62 @ 25 °C
Water Solubility	No data available
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
Oxidizing Properties	No data available
Viscosity	No data available

10. STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Polymerization will not occur. No other data available.
Conditions to avoid	Heat, flames, sparks.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions - carbon oxides, 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	Causes skin irritation
Serious eye damage/eye irritation	Causes serious eye irritation
Respiratory or skin sensitization	May cause respiratory irritation
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
Animal Data:	The product has been reported as a slight skin irritant in animals. In a Bacterial Reverse Mutation Test with an Independent Repeat Assay as reported by DuPont, the product did not cause a positive response in the presence and absence of Aroclor-induced rat liver S9. The product was negative in salmonella gene mutation and mammalian gene mutation assays. Product is not biodegradable.
Specific target organ toxicity - single exposure (Globally Harmonized System)	
Inhalation – may cause respiratory irritation	

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available

Aspiration hazard No data available**Signs and Symptoms of Exposure:** 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** This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer non-recyclable solutions to a licensed disposal company. 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** Listed**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**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 irritant

STOT SE 3

H315
H319
H335
Skin Irrit.

Specific target organ toxicity - single exposure
(Category 3)
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation
Skin irritation

HMIS Classification

Health hazard	2
Flammability	0
Physical hazards	0

NFPA Rating

Health hazard	3
Fire	0
Reactivity Hazard	0

Further Information

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 SDS