

Safety Data Sheet

## FC02-08

# 2-(Perfluorooctyl)ethylene

Revised 16-October-2018

Product Name       2-(Perfluoroctyl)ethylene         Catalog Number       FC02-08         Brand       Fluoryx Labs         CAS no.       21652-58-4    Relevant identified uses of the Substance or mixture and uses advised against	Product Identifier	
Catalog Number       FC02-08         Brand       Fluoryx Labs         CAS no.       21652-58-4         Relevant identified uses of the Substance or mixture and uses advised against       Laboratory chemicals.         Identified uses:       Laboratory chemicals.         Details of the supplier of the safety data sheet       Company         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         Emergency call:       +01-813-248-0585 (International)         +1-800-255-3924 (USA)       2.         LAZARDS IDENTIFICATION       Emergency Overview         OSHA Hazards       No known OSHA hazards         GHS Classification       Skin irritation (Category 2)         Eye irritation (Category 2A)       Specific target organ toxicity - single exposure		2-(Perfluoroctyl)ethylene
Brand       Fluoryx Labs         CAS no.       21652-58-4         Relevant identified uses of the Substance or mixture and uses advised against       Laboratory chemicals. Manufacture of substance         Details of the supplier of the safety data sheet       Company         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         Emergency call:       +01-813-248-0585 (International)         +1-800-255-3924 (USA)       2.         AZARDS IDENTIFICATION       Emergency Overview         OSHA Hazards       No known OSHA hazards         GHS Classification       Skin irritation (Category 2)         Eye irritation (Category 2A)       Specific target organ toxicity - single exposure		
Relevant identified uses of the Substance or mixture and uses advised against Identified uses:       Laboratory chemicals. Manufacture of substance         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         Emergency call:       +01-813-248-0585 (International) +1-800-255-3924 (USA)         2. HAZARDS IDENTIFICATION       Emergency Overview         OSHA Hazards       No known OSHA hazards         GHS Classification       Skin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure	÷	Fluoryx Labs
Identified uses:Laboratory chemicals.Manufacture of substanceDetails of the supplier of the safety data sheet CompanyFluoryx Labs 3650 Research Way, #22 Carson City, NV 89706 USA +1 (510) 329-9149 (Telephone) +1 (510) 686-8799 (Fax) www.fluoryx.comEmergency call:+01-813-248-0585 (International) +1-800-255-3924 (USA)2. HAZARDS IDENTIFICATIONEmergency OverviewOSHA HazardsNo known OSHA hazardsGHS ClassificationSkin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure	CAS no.	21652-58-4
Details of the supplier of the safety data sheet CompanyFluoryx Labs 3650 Research Way, #22 Carson City, NV 89706 	Relevant identified uses of the Subs	tance or mixture and uses advised against
CompanyFluoryx Labs 3650 Research Way, #22 Carson City, NV 89706 USA +1 (510) 329-9149 (Telephone) +1 (510) 686-8799 (Fax) www.fluoryx.comEmergency call:+01-813-248-0585 (International) +1-800-255-3924 (USA)2. HAZARDS IDENTIFICATIONEmergency OverviewOSHA HazardsNo known OSHA hazardsGHS ClassificationSkin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure	Identified uses:	Laboratory chemicals. Manufacture of substances
3650 Research Way, #22         Carson City, NV 89706         USA         +1 (510) 329-9149 (Telephone)         +1 (510) 686-8799 (Fax)         www.fluoryx.com         Emergency call:         +01-813-248-0585 (International)         +1-800-255-3924 (USA)         2. HAZARDS IDENTIFICATION         Emergency Overview         OSHA Hazards         GHS Classification         Skin irritation (Category 2)         Eye irritation (Category 2A)         Specific target organ toxicity - single exposure	Details of the supplier of the safety of	data sheet
Carson City, NV 89706 USA +1 (510) 329-9149 (Telephone) +1 (510) 686-8799 (Fax) www.fluoryx.comEmergency call:+01-813-248-0585 (International) +1-800-255-3924 (USA)2. HAZARDS IDENTIFICATIONEmergency OverviewOSHA HazardsNo known OSHA hazardsGHS ClassificationSkin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure	Company	
USA +1 (510) 329-9149 (Telephone) +1 (510) 686-8799 (Fax) www.fluoryx.comEmergency call:+01-813-248-0585 (International) +1-800-255-3924 (USA)2. HAZARDS IDENTIFICATIONEmergency OverviewOSHA HazardsNo known OSHA hazardsGHS ClassificationSkin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure		
+1 (510) 329-9149 (Telephone) +1 (510) 686-8799 (Fax) www.fluoryx.comEmergency call:+01-813-248-0585 (International) +1-800-255-3924 (USA)2. HAZARDS IDENTIFICATIONEmergency OverviewOSHA HazardsNo known OSHA hazardsGHS ClassificationSkin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure		•
+1 (510) 686-8799 (Fax) www.fluoryx.comEmergency call:+01-813-248-0585 (International) +1-800-255-3924 (USA)2. HAZARDS IDENTIFICATIONEmergency OverviewOSHA HazardsOSHA HazardsGHS ClassificationSkin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure		
Emergency call:       +01-813-248-0585 (International) +1-800-255-3924 (USA)         2. HAZARDS IDENTIFICATION         Emergency Overview         OSHA Hazards       No known OSHA hazards         GHS Classification       Skin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure		
Emergency call:+01-813-248-0585 (International) +1-800-255-3924 (USA)2. HAZARDS IDENTIFICATIONEmergency OverviewOSHA HazardsNo known OSHA hazardsGHS ClassificationSkin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure		
+1-800-255-3924 (USA) 2. HAZARDS IDENTIFICATION Emergency Overview OSHA Hazards GHS Classification Skin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure		www.fluoryx.com
2. HAZARDS IDENTIFICATION         Emergency Overview         OSHA Hazards       No known OSHA hazards         GHS Classification       Skin irritation (Category 2)         Eye irritation (Category 2A)         Specific target organ toxicity - single exposure	Emergency call:	
Emergency Overview         OSHA Hazards       No known OSHA hazards         GHS Classification       Skin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure		+1-800-255-3924 (USA)
OSHA HazardsNo known OSHA hazardsGHS ClassificationSkin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure	2. HAZARDS IDENTIFICATION	
GHS Classification       Skin irritation (Category 2)         Eye irritation (Category 2A)         Specific target organ toxicity - single exposure	Emergency Overview	
Eye irritation (Category 2A) Specific target organ toxicity - single exposure	OSHA Hazards	No known OSHA hazards
Specific target organ toxicity - single exposure	GHS Classification	Skin irritation (Category 2)
(Category 3)		
		(Category 3)
GHS Label elements, including precautionary statements		

Pictogram Signal word

Hazard statement(s) H315

H319 H335

Precautionary statement(s) P261



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

Avoid breathing 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 COMPONENTS**

\_\_\_\_\_

Synonyms	<i>1H,1H,2H</i> -Heptadecafluorodec-1-ene; 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluoro-1-decene
Molecular weight	446.1 g/mole
CAS no	21652-58-4
EC no.	244-503-5
Chemical formula	$CH_2 = CH(CF_2CF_2)_4F$ $C_{10}H_3F_{17}$

No ingredients are hazardous according to relevant criteria.

4. FIRST AID MEASURES	
General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
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	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
5. FIRE FIGHTING 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 if necessary.
Hazardous combustion products	Hazardous decomposition products formed under fire conditions - carbon oxides, hydrogen fluoride
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 and materials for containment and 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. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
8. EXPOSURE CONTROLS AND PERSONAL PRO	DTECTION
Components with workplace control parameters	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 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).
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, 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 workday.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling point Melting point Density pH Form Color Vapor pressure Vapor density Flash point Auto ignition temperature Decomposition temperature Explosive properties Oxidizing properties Solubility in water 149 °C at 760 mm Hg - 42 °C 1.677 g/mL at 25 °C Not measured Clear, liquid Colorless No data available > 1 (air = 1) 125 °C (closed cup) No data available No data available

### **10. STABILITY AND REACTIVITY**

\_\_\_\_\_

### FC02-08 SDS

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No data available
Conditions to avoid	No data available
Materials to avoid	Strong oxidizing agents
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions - carbon oxides, hydrogen fluoride
	Other decomposition products - no data available
Polymerization	Homopolymerization will not occur. Copolymerization can occur in the presence of free radical sources, other monomers, and heat/UV light.

\_\_\_\_\_

# 11. TOXICOLOGICAL INFORMATION

Acute toxicity Oral LD50 Inhalation LC50 Dermal LD50 Other information on acute toxicity	No data available 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
Teratogenicity	No data available
Specific target organ toxicity - single exposure Inhalation	e (Globally Harmonized System) May cause respiratory irritation.
Specific target organ toxicity - repeated expose No data available	sure (Globally Harmonized System)
Aspiration hazard	No data available
Potential health effects Inhalation Ingestion Skin	May be harmful if inhaled. May cause respiratory tract irritation. May be harmful if swallowed. May be harmful if absorbed through skin. May cause

Eyes	skin irritation. May cause eye irritation.
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: Not available
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 surplus and 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
ΙΑΤΑ	Not dangerous goods
15. REGULATORY INFORMATION	
OSHA Hazards	No known OSHA hazards
TSCA	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	No SARA Hazards
Massachusetts Right To Know Components	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components 3,3,4,4,5,5,6	6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodec-1-ene CAS-No. 21652-58-4 Revision Date
New Jersey Right To Know Components 3,3,4,4,5	5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodec-1-ene CAS-No. 21652-58-4 Revision Date

#### 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**

HMIS Classification		
Health hazard:	0	
Flammability:	1	
Physical hazards:	0	
NFPA Rating		
Health hazard:	0	
Fire:	1	
Reactivity Hazard:	0	

\_\_\_\_\_

Legal Disclaimer:

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.

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.

End of SDS