Fluoryx Labs

Safety Data Sheet

FC13-TE6-O-C3

1,1,1,2,2,3,3,4,4,5,5,6,6-Tridecafluoro-8-Propoxyoctane

Revised 14-November-2016

1. PRODUCT AND COMPANY IDENTIFICATION

Material Identification

Product number: FC13-TE6-O-C3

Chemical name: 1,1,1,2,2,3,3,4,4,5,5,6,6-Tridecafluoro-8-propoxyoctane

Company Identification

Distributor:

Fluoryx Labs
3650 Research Way, #22
Carson City, NV 89706
USA

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

2. HAZARDS IDENTIFICATION

Emergency Overview:

OSHA Hazards Combustible Liquid

GHS Classification Flammable liquids (Category 4)

GHS Label elements, including precautionary statements

Pictogram

Signal word Warning

Hazard statement(s)
H227 Combustible liquid
H335 May cause respiratory irritation.

Precautionary statement(s)
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Potential Health Effects

Inhalation — May cause respiratory tract irritation.
Skin — May cause skin irritation.
Eyes — May cause eye irritation.
Ingestion — May be harmful if swallowed.

3. COMPOSITION AND INFORMATION ON COMPONENTS

Synonyms None

Chemical Formula: $C_6F_{13}CH_2CH_2OCH_2CH_2CH_3$
$C_{11}H_{11}F_{13}O$

Molecular Weight 406.10 g/mol

Material	TSCA	CAS #	EINECS #
1,1,1,2,2,3,3,4,4,5,5,6,6-Tridecafluoro-8-propoxyoctane	Not listed	1193010-01-3	None

4. FIRST AID MEASURES

If Inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In Case of Skin Contact Wash off with soap and plenty of water.

In Case of Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes as a precaution.

If Swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE FIGHTING MEASURES

Extinguishing Media: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective clothing.

Hazardous Combustion Products: Carbon oxides, hydrogen fluoride, toxic gases or particles may be formed during combustion. These products may cause severe eye, nose, throat, and lung irritation or toxic effects.

Fire Fighting Instructions: Evacuate personnel to a safe area. Wear self-contained breathing apparatus. Avoid breathing decomposition products.

Further Information: Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

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

Methods for cleaning up Absorb into dry earth, sand, or other suitable absorbant material. Transfer to a closable, labeled salvage container for disposal by an appropriate method.

7. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
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 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

Appearance	
Form	Liquid, clear
Color	Colorless
Safety Data	
pH	No data available
Melting Point/Freezing Point	-52 °C
Boiling Point	174 °C @ 760 mm Hg
Flash Point	70 °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	1.435 g/mL @ 25 °C
Water Solubility	Negligible
Partition Coefficient (*n*-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
Refractive index	1.313 @ 25 °C

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable at normal temperatures and storage conditions.
Possibility of Hazardous Reactions:	No data available
Conditions to Avoid:	Heat, flames and sparks, extremes of temperature and direct sunlight.
Materials to Avoid:	Strong oxidizing agents. Strong acids and bases.
Hazardous Decomposition Products:	May evolve carbon dioxide, carbon monoxide, hydrogen fluoride, and fluorophosgene.
Hazardous Polymerization:	Will not occur.
Other Information:	The vapor is heavier than air and disperses at ground level and displaces oxygen.

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
Teratogenicity	no data available
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
Potential health effects	
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	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	No data available
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	This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Offer unused product to Fluoryx. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated Packaging	Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)	UN-Number: 1993 Class: CBL Packing group: III Proper shipping name: Combustible liquid, n.o.s. (1,1,1,2,2,3,3,4,4,5,5,6,6-Tridecafluoro-8-propoxy-octane) Marine Pollutant: No Poison Inhalation Hazard: No
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards	Combustible Liquid
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	Fire 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.
National Regulations (US)	
TSCA Inventory 8(b):	Not listed.
Canadian DSL	Not listed.

16. OTHER INFORMATION

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

Fire :	1
Reactivity hazard :	0

Other 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.

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