

FC13-10114Ep

Ethyl-4-(1,1,2,2-Tetrafluoroethoxy)benzoate

Revised 14-November-2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Ethyl-4-(1,1,2,2-tetrafluoroethoxy)benzoate
Catalog Number	FC13-10114Ep
Supplier	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	No known OSHA hazards
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	Causes skin irritation.
H319	Causes serious eye irritation.
H335	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.

Potential Health Effects

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

3. COMPOSITION AND INFORMATION ON COMPONENTS

Synonyms: Benzoic acid, 4-(1,1,2,2-tetrafluoroethoxy)-, ethyl ester

Chemical formula: $p\text{-CH}_3\text{CH}_2\text{OC(O)C}_6\text{H}_4\text{OCF}_2\text{CF}_2\text{H}$
 $\text{C}_{11}\text{H}_{10}\text{F}_4\text{O}_3$

Material	Molecular Weight	TSCA Listed	EINECS #	CAS #
Ethyl-4-(1,1,2,2-tetrafluoroethoxy)benzoate	266.18	No	None	37178-69-1

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.
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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 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 Clear liquid

Color Colorless

Safety Data

pH No data available

Melting Point/Freezing Point No data available

Boiling Point 244 °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 No data available

Vapor Pressure No data available

Refractive Index 1.45 at 25 °C

Density 1.28 g/mL at 17 °C

Solubility in Water Negligible

Partition Coefficient (n-octanol/water) No data available

Relative Vapor Density (Air = 1)	No data available
Odor	No data available
Odor Threshold	No data available
Evaporation Rate	No data available

10. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	None known.
Conditions to avoid	Heat.
Materials to avoid	Strong oxidizing agents. Strong acids and bases.
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	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. May cause 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

Offer surplus and non-recyclable solutions to a licensed disposal company or contact Fluorox 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

OSHA Hazards

No known OSHA hazards

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

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

HMIS Classification

Health hazard:	1
Flammability:	0
Physical hazards:	0

NFPA Rating

Health hazard:	1
Fire:	0
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.

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End of SDS