

FC13-894m

1,1,2,2-Tetrafluoroethyl-3-Methylphenyl Ether

Revised 14-November-2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	1,1,2,2-Tetrafluoroethyl-3-methylphenyl ether
Catalog Number	FC13-894m
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 INFORMATION

Emergency Overview

OSHA Hazards	Combustible liquid
GHS Classification	Flammable liquid (Category 4)

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H227

Combustible liquid.

Precautionary statement(s)

P210

Keep away from heat/sparks/open flames/hot surfaces – No smoking.

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P271

Use only outdoors or in a well-ventilated area.

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 INGREDIENTS

Synonyms	HFE-894m;
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$\alpha,\alpha,\beta,\beta$ -Tetrafluoro-*m*-methylphenetole;
 1-Methyl-3-(1,1,2,2-tetrafluoroethoxy)benzene;
 3-Tetrafluoroethoxytoluene;
 1,1,2,2-Tetrafluoro-3-methylphenetole;
 3-(1,1,2,2-Tetrafluoroethoxy)toluene

Chemical formula

C₉H₈F₄O
m-CH₃C₆H₄OCF₂CF₂H

Components

Material	Molecular Weight	CAS #	EINECS #	TSCA
1,1,2,2-Tetrafluoroethyl-4-methylphenyl ether	208.16	1737-10-6	217-085-7	Listed

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.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES**Conditions of flammability**

Keep away from heat/sparks/open flame/hot surface. No smoking.

Suitable extinguishing media

Carbon dioxide, dry chemical powder, alcohol or polymer foam, Halons.

Special protective equipment for firefighters

Wear self-contained breathing apparatus for fire fighting.

Hazardous combustion products

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

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Use personal protective equipment. 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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

7. HANDLING AND STORAGE**Precautions for Safe Handling**

Avoid contact with the substance. Provide

appropriate exhaust ventilation at places where dust, mist or vapors are formed. Do not handle in a confined space.

Conditions for Safe Storage

Store in dry and cool place. Keep away from heat, sparks and flames. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

Other Precautions:

None known.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Contains no substances with published occupational exposure limit values. However, inhalation exposure should be strictly limited.

Personal protective equipment

Respiratory protection

Use only in a chemical fume hood or local exhaust ventilation, and process enclosure if necessary to control exposure. 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.

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. Flame retardant antistatic protective 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.

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	168 °C @ 760 mm Hg

Flash Point	61 °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	1.25 g/mL @ 23 °C
Water Solubility	Negligible
Partition Coefficient (<i>n</i> -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
Refractive index	1.42 @ 25 °C

10. STABILITY AND REACTIVITY

Storage stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	None known.
Conditions to avoid	Heat, flames and sparks. Extremes of temperature and direct sunlight.
Materials to avoid	Oxidizing agents. Strong acids. Strong bases.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions - carbon oxides, hydrogen fluoride, carbonyl fluoride.

11. TOXICOLOGICAL INFORMATION

Exposure limits	None established
Acute toxicity	Oral: no data available Inhalation: no data available Dermal: no data available
Chronic 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

Tetragenicity No data available

Specific target organ toxicity (Globally Harmonized System)

Single exposure No data available

Repeated exposure No data available

Aspiration Hazard No data available

Potential Health Effects

Inhalation May cause respiratory tract irritation.

Skin May cause skin irritation.

Eyes May cause eyes irritation.

Ingestion May be harmful if swallowed.

Signs and Symptoms of Exposure No data available

Synergistic Effects No data available

Additional Information No data 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

Air, Photolysis, ODP = 0. Result: no effect on stratospheric ozone.
Reference value for CFC 11: ODP = 1.

Air, Greenhouse Effect GWP = No data available. Reference value for carbon dioxide: GWP = 1.

Other adverse effects No data available

13. DISPOSAL CONSIDERATIONS

Product Burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and 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) NA1993
Class CBL
Proper shipping name: Combustible Liquid, n.o.s.
(1,1,2,2-Tetrafluoroethyl-3-methylphenyl ether)
Packing group III
Marine pollutant: No
Poison inhalation hazard: No
Labeling: None

IMDG Not dangerous goods

IATA Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards	Combustible liquid.
TSCA Status	Not listed on US TSCA Inventory. It is for research and development use only.
DSL Status	The substance is not specified on any list.
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.

16. OTHER INFORMATION

HMIS Classification	
Health Hazard:	0
Flammability:	2
Physical hazards:	0
NFPA Rating	
Health Hazard:	0
Fire:	2
Reactivity Hazard:	0
Legal Disclaimer:	<p>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.</p> <p>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</p>

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End of SDS