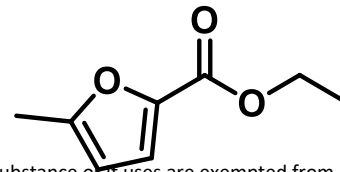


SAFTEY DATA SHEET

according to Regulation (EC) No. 1907/2006



1. Product and Company Identification

1.2. Product identifiers

Product name : Ethyl-5-methyl-2-furoate
 Brand : xF Technologies Inc.
 REACH : A Registration number is not available as this substance or its uses are exempted from registrations, the annual tonnage does not require a registration or the registration is envisaged for a later deadline.
 CAS-No. : 14003-12-4

1.3. Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial uses, Manufacturing

1.4. Details of the supplier of the safety data sheet

Company : xF Technologies Inc.
 68 Salida Del Sol, P.O. Box 1510, Edgewood NM 87015
 Telephone : 505-803-4207
 Fax : n/a

1.5. Emergency telephone number

Emergency Phone # : 505-515-8139

2. Hazards Identification

2.2. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation (EC) No 1272/2008

Flammable liquid/vapor (Category 3), H226

Full text for statement, Section 16

2.3. GHS Label elements, Labelling according to Regulation (EC) No 1272/2008

Pictogram : none
 Signal word : Warning
 Hazard statement :
 H226 : Flammable liquid/vapor
 Precautionary statements :
 P210 : Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 P280 : Wear protective gloves/clothing, eye/face protection.
 P370+P378 : In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
 P403+P235 : Store in well-ventilated place. Keep cool.
 P501 : Dispose of contents to an approved disposal plant.

2.4. Hazards not otherwise classified (HNOC) or not covered by GHS

none

3. Composition/Information on Ingredients

3.2. Substances

Synonyms : 5-methylfuran-2-carboxylic acid ethyl ester
 Formula : C₈H₁₀O₃
 Molecular weight : 154 g/mol
 CAS-No. : 14003-12-4

4. First Aid Measures

4.2. Description of first aid measures

General Advice

Move out of dangerous area and consult a physician.

If inhaled

In inhaled, move to fresh air. Give artificial respiration if not breathing, consult a physician.

In case of skin contact

Wash with soap and water, consult a physician.

In case of eye contact

Flush eyes with water.

If swallowed

Do NOT induce vomiting. Rinse mouth with water and consult a physician. (Do NOT give anything by mouth, if unconscious.)

5. Firefighting Measure

5.2. Extinguishing media

Suitable extinguishing media

Use media like “alcohol” foam, dry chemical or carbon dioxide. For larger fires, use water from as far away as possible. Apply as mist or spray, large, solid streams of water may be ineffective. Cool affected area with flooding amounts of water.

5.3. Special hazards arising from the substance or mixture

Carbon oxides

5.4. Advice for firefighters

Wear self-contained breathing apparatus for firefighting, if necessary.

5.5. Further information

Use water spray to cool unopened containers.

6. Accidental Release Measures

6.2. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Work in well ventilated areas, avoid breathing vapors. Vapors can accumulate in low areas. See section 8 for personal protection.

6.3. Environmental precautions

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

6.4. Methods and materials for containment and cleaning up

Contain spillage, and collect using electrically protected vacuum or by brushing. Place in container for proper disposal. See section 13 for disposal.

7. Handling and Storage

7.2. Precautions for safe handling

Avoid inhalation of vapor or mist
Keep away from sources of ignition. No smoking.

7.3. Conditions for safe storage, including incompatibilities

Keep in tightly closed carbon steel or HDPE container. Store in dry, well-ventilated area, preferably a flame closet.
Keep containers upright to prevent leakage.

8. Exposure Controls/Personal Protection

8.2. Control parameters

Components with workplace control parameters

No substances present requiring occupational exposure limit values.

8.3. Exposure controls

Appropriate engineering controls

Use good industry hygiene and common sense. Wash hands after working.

Personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166.
Use eye protection approved under appropriate government standards.

Skin protection

Handle with gloves. Avoid skin contact with product. Wash and dry hands after use.

Body protection

Impervious clothing. Protective equipment must be selected according to concentration being used and specific workplace.

Respiratory protection

Where shown appropriate for use, use full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) cartridge as backup to engineering controls. Respirator should conform to government standards.

Control of environmental exposure

Prevent further leakage, if possible. Do not allow to enter drains.

9. Physical and Chemical Properties

9.2. Information on basic physical and chemical properties

Appearance	Yellow liquid
Melting point/freezing point	-32 °C (-26.5 °F)
Boiling point (@760 torr)	215 °C (419 °F)
Flash point (Tag Closed Cup)	79 °C (174.2 °F)
Vapor pressure (@20 °C)	0.08 mmHg
Specific gravity	1.09 g/mL (9.1 lbs/gal)
Auto ignition temperature	336 °C (636.8 °F)
Latent heat of vaporization	374 kJ/kg
Hansen Solubility Parameters	17.0, 6.9, 4.7, 19.0 (dD, dP, dH, dTot)
Evaporation rate (BuAc=100)	3.1
Solubility in water	9.4 x 10 ⁻² wt%
Maximum Incremental Reactivity	5.765 g O ₃ / g VOC
Log (OHR)	0.0137 x 10 ⁻¹³
Specific Heat	
(@0 °C)	2.00 J/g °C (308.00 J/mol °C)
(@50 °C)	2.07 J/g °C (318.78 J/mol °C)
(@100 °C)	2.14 J/g °C (329.56 J/mol °C)
Viscosity	
(@20 °C)	0.9 cp
(@50 °C)	NA
(@80 °C)	NA

10. Stability and Reactivity

10.2. Reactivity

No data available

10.3. Chemical stability

Stable under recommended storage conditions.

10.4. Possibility of hazardous reactions

No data available

10.5. Conditions to avoid

Heat, flames and sparks.

10.6. Incompatible materials

Oxidizing agents

10.7. Hazardous decomposition products

In case of fire, see section 5.

No other data available.

11. Toxicological Information

11.2. Information on toxicological effects

Acute toxicity

LD50 (oral) : 2 g/kg

Low acute toxicity.

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

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

Specific target organ toxicity – single exposure

No data available

Specific target organ toxicity – repeated exposure

No data available

Aspiration hazard

No data available

12. Ecological information

12.2. Toxicity

No data available

12.3. Persistence and degradability

No data available

12.4. Bioaccumulative potential

No data available

12.5. Mobility in soil

No data available

12.6. Results of PBT and vPvB assessment

No data available

Not required/not conducted

12.7. Other adverse effects

No data available

13. Disposal considerations

13.2. Waste treatment methods

Product

Product is combustible and may be burned in a chemical incinerator equipped with an afterburner and scrubber. Any surplus/non-recyclable solutions should be sent to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. Transport information

14.2. DOT (US)

Not restricted; Not dangerous goods

14.3. IMDG

Not restricted; Not dangerous goods

14.4. IATA

Not restricted; Not dangerous goods

15. Regulatory information

15.2. SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. This safety data sheet complies with the requirements of the Regulation (EC) No 1907-2006.

15.3. 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.

15.4. SARA 311/312 Hazards

Fire Hazard

15.5. Massachusetts Right To Know Components

No components are subject to Massachusetts Right to Know Act

15.6. Pennsylvania Right To Know Components

Ethyl 5-methyl-2-furoate

CAS-No.

14003-12-4

15.7. New Jersey Right To Know Components

Ethyl 5-methyl-2-furoate

CAS-No.

14003-12-4

15.8. California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

16.2. Full text of H-Statements referred to under sections 2 and 3

H226

Flammable liquid/vapor

16.3. HMIS Rating

Health hazard: 1

Chronic Health Hazard:

Flammability: 2

Physical Hazard 0

16.4. NFPA Rating

Health hazard: 0

Fire Hazard: 2

Reactivity Hazard: 0

