



## 1. Product and Company Identification

### 1.2. Product identifiers

Product name : Ethyl-5-methyl-2-furoate  
 Brand : xF Technologies  
 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  
 P.O. 1510  
 Edgewood, NM 87015  
 Telephone : 505-515-8139  
 Fax :

### 1.5. Emergency telephone number

Emergency Phone # : 505-407-4210

## 2. Hazards Identification

### 2.2. Classification of the substance or mixture

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Falmmable liquids (Category 4), H227

Full text for statement, Section 16

### 2.3. GHS Label elements, including precautionary statements

Pictogram	none
Signal word	Warning
Hazard statement	
H227	Combustible liquid
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	C <sub>8</sub> H <sub>10</sub> O <sub>3</sub>
Molecular weight	154 g/mol
CAS-No.	14003-12-4

## 4. First Aid Measures

### 4.2. Description of first aid measures

#### General Advise

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)
Flammability limits	Test in Process
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
Interfacial surface tension	Test in Process
Refractive Index (RI)	Test in Process
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 <sup>-2</sup> wt%
Thermal conductivity	Test in Process
Dielectric constant	Test in Process
Electrical resistivity	Test in Process
Electrical conductivity	Test in Process
Maximum Incremental Reactivity	5.765 g O <sub>3</sub> / g VOC
Log (OHR)	0.0137 x 10 <sup>-13</sup>
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)	Test in Process
(@80 °C)	Test in Process

**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)**

NA Number: 1993                      Class: None                      Packing group: III  
Proper shipping name: Combustible liquids, n.o.s. (Ethyl 5-methyl-2-furoate)  
Poison Inhalation Hazard: No

**14.3. IMDG**

Not dangerous goods

**14.4. IATA**

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.

**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**

	CAS-No.	Revision Date
Ethyl 5-methyl-2-furoate	14003-12-4	

**15.7. New Jersey Right To Know Components**

	CAS-No.	Revision Date
Ethyl 5-methyl-2-furoate	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**

Flam. Liq.	Flammable liquids
H227	Combustible liquid

**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

