

## Chemical Safety Data Sheet MSDS / SDS

**METHYL 2-FLUORO-2-METHYLPROPIONATE**Revision Date:2026-05-31 Revision Number:1

---

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product identifier**

Product name : METHYL 2-FLUORO-2-METHYLPROPIONATE  
CBnumber : CB6249601  
CAS : 338-76-1  
Synonyms : METHYL 2-FLUORO-2-METHYLPROPANOATE,METHYL 2-FLUORO-2-METHYLPROPIONATE

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

**Company Identification**

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 010-86108875

---

**SECTION 2: Hazards identification****GHS Label elements, including precautionary statements**

Symbol(GHS)



Signal word

Danger

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Hazard statements**

H225 Highly Flammable liquid and vapour  
H315 Causes skin irritation  
H319 Causes serious eye irritation

---

**SECTION 3: Composition/information on ingredients****Substance**

Product name	: METHYL 2-FLUORO-2-METHYLPROPIONATE
Synonyms	: METHYL 2-FLUORO-2-METHYLPROPANOATE, METHYL 2-FLUORO-2-METHYLPROPIONATE
CAS	: 338-76-1
MF	: C5H9FO2
MW	: 120.12

---

## SECTION 4: First aid measures

### **If inhaled**

Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

### **In case of skin contact**

Take off all contaminated clothing immediately. If on skin, rinse well with water. If skin irritation or rash occurs: Get medical advice/ attention.

### **In case of eye contact**

Rinse with plenty of water. If easy to do, remove contact lens, if worn. Immediately call a POISON CENTER or doctor/ physician.

### **If swallowed**

Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. Do NOT induce vomiting.

### **Most important symptoms and effects, both acute and delayed**

None known.

---

## SECTION 5: Firefighting measures

### **Suitable extinguishing media**

Dry powder, Foam, Water spray, Carbon dioxide (CO<sub>2</sub>)

### **Specific hazards during fire fighting**

No information available.

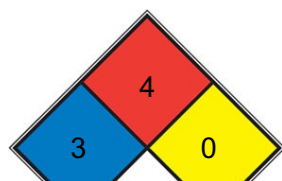
### **Specific extinguishing methods**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Remove undamaged containers from fire area if it is safe to do so.

### **Special protective equipment for fire-fighters**

Use personal protective equipment.

### **NFPA 704**





- HEALTH 3 Short exposure could cause serious temporary or moderate residual injury (e.g. [liquid hydrogen](#), [sulfuric acid](#), [calcium hypochlorite](#), hexafluorosilicic acid)
- 
- FIRE 4 Will rapidly or completely vaporize at normal atmospheric pressure and temperature, or is readily dispersed in air and will burn readily. Includes pyrophoric substances. Flash point below room temperature at 22.8 °C (73 °F). (e.g. acetylene, propane, [hydrogen gas](#))
- 
- REACT 0 Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, [N2](#))
- 
- SPEC.
- HAZ.
- 

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

### Environmental precautions

Prevent product from entering drains.

### Methods and materials for containment and cleaning up

Collect as much of the spill as possible with a suitable absorbent material.

---

## SECTION 7: Handling and storage

### Handling

#### Technical measures

Prevent generation of vapor or mist. Take precautionary measures against static discharge. Use explosion-proof equipment.

#### Local/Total ventilation

Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation.

#### Advice on safe handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not subject to grinding, shock or friction. Wash hands and face thoroughly after handling.

#### Avoidance of contact

Oxidizing agents

### Storage

#### Conditions for safe storage

Keep container tightly closed. Store in a cool and shaded area. Keep in a well-ventilated place. Use explosion-proof equipment. Store locked

up.

---

## SECTION 8: Exposure controls/personal protection

### **Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

### **Engineering measures**

Install a closed system or local exhaust.

Also install safety shower and eye bath.

### **Personal protective equipment**

#### **Respiratory protection**

Gas mask

Self-contained breathing apparatus

#### **Eye/face protection**

Safety glasses

Safety goggles

Face-shield

#### **Skin and body protection**

Impervious protective clothing

#### **Hand protection**

Impervious gloves \*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

---

## SECTION 9: Physical and chemical properties

### **Information on basic physicochemical properties**

liquid

---

#### **Color**

colorless

#### **Odor**

No data available

#### **Odor Threshold**

No data available

#### **pH**

No data available

#### **Melting point/freezing point**

No data available

**Boiling point/boiling range**

109 °C

**Flash point**

22 °C (Calculated value)

**Evaporation rate**

No data available

**Flammability**

No data available

**Upper explosion limit / Upper flammability limit**

No data available

**Lower explosion limit / Lower flammability limit**

No data available

**Vapor pressure**

No data available

**Relative density**

1.03

**Solubility(ies)**

**Water solubility**

No data available

**Solubility in other solvents**

No data available

**Partition coefficient: n-octanol/water**

No data available

**Autoignition temperature**

No data available

**Decomposition temperature**

No data available

**Viscosity**

**Viscosity, dynamic**

No data available

**Viscosity, kinematic**

No data available

**Molecular weight**

120.12 g/mol

**Physical state**

clear liquid

---

**SECTION 10: Stability and reactivity****Reactivity**

No data available

**Chemical stability**

Stable under normal conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

Electrical spark Open flame Electrostatic discharge

**Incompatible materials**

Oxidizing agents

**Hazardous decomposition products**

Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Hydrogen fluoride

---

**SECTION 11: Toxicological information****Acute toxicity**

Classified based on available data. For more details, see section 2.

**Skin corrosion/irritation****Product****Result**

Causes burns.

**Components****Methyl 2-Fluoro-2-methylpropionate**

**Result**

Causes burns.

**Serious eye damage/eye irritation****Product****Result**

Irreversible effects on the eye

**Components****Methyl 2-Fluoro-2-methylpropionate****Result**

Irreversible effects on the eye

**Respiratory or skin sensitization**

Classified based on available data. For more details, see section 2.

**Germ cell mutagenicity**

Classified based on available data. For more details, see section 2.

**Carcinogenicity**

Classified based on available data. For more details, see section 2.

**Reproductive toxicity**

Classified based on available data. For more details, see section 2.

**STOT-single exposure**

Classified based on available data. For more details, see section 2.

**STOT-repeated exposure**

Classified based on available data. For more details, see section 2.

**Repeated dose toxicity**

Classified based on available data. For more details, see section 2.

**Aspiration toxicity**

Classified based on available data. For more details, see section 2.

---

**SECTION 12: Ecological information****Ecotoxicity**

No data available

### **Persistence and degradability**

No data available

### **Bioaccumulative potential**

No data available

### **Mobility in soil**

No data available

### **Other adverse effects**

No data available

---

## SECTION 13: Disposal considerations

### **Disposal methods**

#### **Waste from residues**

Disposal in accordance with local and national regulations. Take precautions against ignition or explode. Entrust disposal to a licensed waste disposal company.

#### **Contaminated packaging**

Disposal in accordance with local and national regulations. Before disposal of used container, remove contents completely.

---

## SECTION 14: Transport information

### **International Regulations**

#### **IATA-DGR**

##### **UN/ID No.**

UN 2924

##### **Proper shipping name**

Flammable liquid, corrosive, n.o.s.

##### **Class**

3

##### **Subsidiary risk**

8

##### **Packing group**

II

#### **IMDG-Code**

##### **UN number**

UN 2924

##### **Proper shipping name**

FLAMMABLE LIQUID, CORROSIVE, N.O.S.

**Class**

3

**Subsidiary risk**

8

**Packing group**

II

**EmS Code**

F-E, S-C

**Domestic regulation**

**GB 6944/12268**

**UN number**

UN 2924

**Proper shipping name**

FLAMMABLE LIQUID, CORROSIVE, N.O.S.

**Class**

3

**Subsidiary risk**

8

**Packing group**

II

---

## SECTION 15: Regulatory information

### Measures on the Environmental Administration of New Chemical Substances Registration

**Registration/Notification number**

B1A232214896

Downstream users need to comply with the conditions of safe use of the chemical, understand the environmental and health hazard and risk management measures identified on the SDS as well as the local/national regulations concerning the chemical.

### The ingredients of this product are reported in the following inventories

**CH BAGREG**

Not in compliance with the inventory

**TSCA**

Substance(s) not listed on TSCA inventory

**AICS**

Not in compliance with the inventory

**DSL**

This product contains the following components that are not on the Canadian DSL nor NDSL.

Methyl 2-Fluoro-2-methylpropionate

**ENCS**

On the inventory, or in compliance with the inventory

**ISHL**

Not in compliance with the inventory

**KECI**

Not in compliance with the inventory

**PICCS**

Not in compliance with the inventory

**IECSC**

Not in compliance with the inventory

**NZIoC**

Not in compliance with the inventory

---

## SECTION 16: Other information

### Abbreviations and acronyms

CAS: Chemical Abstracts Service

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

EC50: Effective Concentration 50%

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

DOT: US Department of Transportation

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

**Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.