

Specification Sheet

Chemical Name		CAS No.
Ethyl Fluoroacetate		459-72-3
Testing Parameters	Testing Method	Specification
Appearance	Visual Inspection	Colorless to Pale Yellow Liquid
Purity (wt%)	GC	≥99.50



Safety Data Sheet (SDS)**Ethyl Fluoroacetate****CAS Number:** 459-72-3**SECTION 1: IDENTIFICATION**

- **Product Name:** Ethyl Fluoroacetate
- **Recommended Use:** Laboratory chemical, synthesis of substances
- **Uses Advised Against:** Any non-exempt commercial use under TSCA without consent
- **Supplier:** Automat Solutions, Inc.
- **Emergency Contact:** 510-982-6488

SECTION 2: HAZARD IDENTIFICATION

- **GHS Classification:**
 - Flammable liquid – Category 3
 - Acute toxicity (oral) – Category 2
 - Acute toxicity (inhalation) – Category 3
 - Acute toxicity (dermal) – Category 3
 - Serious eye damage – Category 1
 - Aquatic acute hazard – Category 1
- **Signal Word:** **Danger**
- **Hazard Statements:**
 - H226: Flammable liquid and vapor
 - H300: Fatal if swallowed
 - H311: Toxic in contact with skin
 - H331: Toxic if inhaled
 - H318: Causes serious eye damage
 - H400: Very toxic to aquatic life



- **Precautionary Statements:**

- P210, P233, P240, P241, P242, P243: Flammable handling precautions
- P261, P264, P270, P271, P273: Exposure and environmental precautions
- P280: Wear protective gloves, clothing, eye/face protection
- P301+P310+P330, P303+P361+P353, P304+P340+P311, P305+P351+P338+P310: Emergency first aid measures
- P391: Collect spillage
- P403+P233+P235: Store in a cool, well-ventilated place
- P405: Store locked up
- P501: Dispose of contents/container according to local/national regulations

- **Hazards Not Otherwise Classified (HNOC):** Lachrymator

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Concentration
Ethyl Fluoroacetate	459-72-3	≤100%

SECTION 4: FIRST AID MEASURES

- **General Advice:** Show this SDS to the treating physician.
- **Inhalation:** Move to fresh air. Call physician immediately. Administer oxygen if breathing has stopped.
- **Skin Contact:** Remove contaminated clothing. Rinse with water/shower. Call physician.
- **Eye Contact:** Rinse thoroughly with water. Call an ophthalmologist.
- **Ingestion:** Rinse mouth. If medical care is delayed >1 hour, induce vomiting (only conscious individuals), administer activated charcoal, and call physician.
- **Symptoms:** Eye damage, respiratory issues, nausea, headache

SECTION 5: FIRE-FIGHTING MEASURES

- **Extinguishing Media:** Foam, CO₂, dry powder, water



- **Hazards:** Carbon oxides, hydrogen fluoride, explosive vapor-air mixtures
- **Protective Equipment:** SCBA and full protective clothing
- **Other Information:** Cool containers with water. Prevent runoff contamination

SECTION 6: ACCIDENTAL RELEASE MEASURES

- **Personal Precautions:** Avoid contact, ensure ventilation, remove ignition sources
- **Environmental Precautions:** Do not let product enter drains.
- **Cleanup:** Use Chemizorb® or similar absorbent. Dispose according to local laws

SECTION 7: HANDLING AND STORAGE

- **Handling:** Work under fume hood. Avoid vapors and aerosols. Take precautions against static discharge
- **Storage Conditions:** Store tightly sealed in a cool, dry, well-ventilated area. Keep locked up
- **Storage Class:** 3 (Flammable liquids)

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

- **Engineering Controls:** Use local exhaust. Wash hands/face after handling
- **Personal Protective Equipment (PPE):**
 - **Eyes:** Safety goggles (NIOSH/EN 166)
 - **Skin:** Protective gloves
 - **Clothing:** Flame-retardant, antistatic garments
 - **Respiratory:** ABEK filter if aerosols or vapors are present

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** Clear, colorless liquid
- **Boiling Point:** 119.3 °C
- **Flash Point:** 31 °C (closed cup)
- **Density:** 1.098 g/cm³ at 25 °C
- **Water Solubility:** Not available



- **Autoignition Temp, Explosive Limits, etc.:** No data available

SECTION 10: STABILITY AND REACTIVITY

- **Stability:** Stable under standard ambient conditions
- **Conditions to Avoid:** Heat
- **Incompatible Materials:** Acids, bases, oxidizing and reducing agents
- **Decomposition Products:** CO, HF

SECTION 11: TOXICOLOGICAL INFORMATION

- **Oral LD₅₀:** ~5.1 mg/kg (estimated)
- **Inhalation LC₅₀:** ~3.1 mg/L vapor (estimated)
- **Dermal LD₅₀:** ~200.1 mg/kg (estimated)
- **Eye Damage:** Causes serious damage
- **Other Symptoms:** Cough, shortness of breath, headache, nausea
- **Carcinogenicity:** Not listed by IARC, NTP, OSHA

SECTION 12: ECOLOGICAL INFORMATION

- **Toxicity:** Very toxic to aquatic organisms
- **Persistence, Bioaccumulation, Mobility:** No data available
- **PBT/vPvB:** Not evaluated
- **Endocrine Disruption:** No data

SECTION 13: DISPOSAL CONSIDERATIONS

- **Disposal Methods:** Dispose in accordance with local/national laws. Keep in original container. Do not mix with other waste

SECTION 14: TRANSPORT INFORMATION

- **DOT:**
 - UN Number: 2929
 - Class: 6.1 (3)



- Packing Group: II
- Proper Shipping Name: Toxic liquids, flammable, organic, n.o.s. (Ethyl fluoroacetate)
- **IMDG:**
 - UN Number: 2929
 - Class: 6.1 (3)
 - Packing Group: II
 - Marine Pollutant: Yes
- **IATA:**
 - UN Number: 2929
 - Class: 6.1 (3)
 - Packing Group: II

SECTION 15: REGULATORY INFORMATION

- **TSCA:** Listed
- **CERCLA / SARA:** Not subject
- **SARA 311/312:** Fire hazard, Acute & Chronic health hazard
- **SARA 313 / State CHC Lists:** Not listed

SECTION 16: OTHER INFORMATION

- **Version:** 6.9
- **Revision Date:** 05/07/2024
- **Disclaimer:** This SDS is for guidance only, based on available information, and does not constitute a guarantee of product safety or fitness for a specific purpose.

