## Section 1. Identification

**Product Identity** Ethyl Lactate
**Other means of identification** Ethyl 2-hydroxypropanoate; Ethyl 2-hydroxypropionate; Lactic acid, ethyl ester

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

Industrial and laboratory solvent applications. Uses advised against: none identified.

**Details of the supplier of the safety data sheet**

**Company Name**
Silver Fern Chemical, Inc.
121 W. De La Guerra Street, Suite B
Santa Barbara, CA 93101 USA
info@silverfernchemical.com
Website - www.silverfernchemical.com

**24-hour Emergency Telephone No.**
**Emergency telephone number:**
**Infotrac: 1-800-535-5053**
**Outside USA & Canada +1-352-323-3500**

**Customer Service:** Customer Service: 1-866-282-3384

## Section 2. Hazard(s) identification

**Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)**

| | |
|---|---|
| Flammable Liquid, category 3;H226<br>Skin corrosion / irritation, category 2;H315<br>Serious eye damage / eye irritation, category 1;H318<br>Specific target organ toxicity, Single exposure category 3;H335 | Flammable liquid and vapor.<br>Causes skin irritation.<br>Causes serious eye damage.<br>May cause respiratory irritation. |

**Label elements**





**Danger**

H226 Flammable liquid and vapor.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

**[Prevention]**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking.
P233 Keep container tightly closed.
P235 Keep cool.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical, ventilating, lighting and other equipment.

P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing dust, fume, gas, mist, vapors, spray.
P264 Wash hands and exposed skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves, eye protection, and face protection.
**[Response]**
P302+352 IF ON SKIN: Wash with plenty of water.
P303+361+353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER, doctor or physician.
P312 Call a POISON CENTER, doctor or physician if you feel unwell.
P332+313 If skin irritation occurs: Get medical advice/attention.
P362+364 Take off contaminated clothing and wash it before reuse.
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.
**[Storage]**
P403+233 Store in a well ventilated place. Keep container tightly closed.
P403+235 Store in a well ventilated place. Keep cool.
P405 Store locked up.
**[Disposal]**
P501 Dispose of contents and container in accordance with local, state and federal regulations (see Section 13).

**Other hazards**

This product contains no PBT/vPvB/vPvM chemicals.
This product contains no endocrine disrupting chemicals.
Hazards not otherwise classified (HNOC): None known.

Does NOT contain component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS) per the US EPA PFASMASTER combined list of PFAS chemicals.

## Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

| Ingredient/Chemical Designations | Weight % | GHS Classification | Notes |
|---|---|---|---|
| **Ethyl lactate**<br>**CAS Number: 97-64-3**<br>**Synonyms: Propanoic acid, 2-hydroxy-, ethyl ester** | **75-100** | **Flammable Liquid, category 3;H226**<br>**Skin corrosion / irritation, category 2;H315**<br>**Serious eye damage / eye irritation, category 1;H318**<br>**Specific target organ toxicity, Single exposure category 3;H335** | **Single-component substance** |

This product is a single-component substance. Concentration shown is typical minimum purity.
The full texts of the H-statements are shown in Section 16.

## Section 4. First aid measures

### Description of first aid measures

**General** In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

**Inhalation** Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

**Eyes** Immediately rinse with plenty of clean water for at least 15 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a physician or ophthalmologist.

**Skin** Take off immediately all contaminated clothing. Rinse skin with water or shower, then wash with soap and water. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing before reuse.

**Ingestion** Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention.

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

**Overview** Causes serious eye damage (pain, redness, tearing, possible corneal injury) and skin irritation (redness, dryness). Vapors may irritate the nose, throat and respiratory tract; high vapor concentrations may cause headache, dizziness and drowsiness. No chronic toxicity data available.
**Inhalation** May cause respiratory irritation.
**Eyes** Causes serious eye damage.
**Skin** Causes skin irritation.

### Indication of any immediate medical attention and special treatment needed

Eye contact requires immediate medical attention, preferably by an ophthalmologist. Treat symptomatically and supportively. No specific antidote is known.

## Section 5. Fire-fighting measures

### Extinguishing media

Suitable extinguishing media: alcohol-resistant foam, carbon dioxide (CO2), dry chemical, water spray.
Unsuitable extinguishing media: solid water stream (may scatter and spread the fire).

### Special hazards arising from the substance or mixture

Hazardous combustion products: carbon monoxide and carbon dioxide.
Flammable liquid and vapor. Vapors are heavier than air and may travel along the ground to a distant ignition source and flash back.
Vapor/air mixtures are explosive at elevated temperatures. Vapor explosion hazard indoors, outdoors or in sewers.
Containers may rupture or explode when heated. Cool fire-exposed containers with water spray from a safe distance.
Prevent fire-fighting runoff from entering drains or waterways; runoff to sewers may create a fire or explosion hazard.

### Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

**ERG Guide No.** 129

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources (no smoking, flares, sparks or flames in the immediate area). Use non-sparking tools and grounded equipment. Ventilate the area. Put on appropriate personal protective equipment, including chemical splash goggles (see Section 8).
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

### Environmental precautions

Do not allow spills to enter drains, sewers or waterways (risk of explosion). Report releases as required by federal, state and local regulations.

### Methods and material for containment and cleaning up

Stop the leak if safe to do so. Contain and absorb spillage with non-combustible absorbent material (e.g. sand, earth, vermiculite). Collect using clean, non-sparking tools and place in closed, labeled containers for disposal in accordance with Section 13. A vapor-suppressing foam may be used to reduce vapors.

## Section 7. Handling and storage

### Precautions for safe handling

Keep away from heat, sparks, open flames and hot surfaces. Ground and bond

containers and receiving equipment; take precautionary measures against static discharge. Use only in well-ventilated areas. Avoid contact with eyes and skin and avoid breathing vapors. Handle containers carefully to prevent damage and spillage.
See section 2 for further details. - [Prevention]

**Conditions for safe storage, including any incompatibilities**
Store in a cool, dry, well-ventilated area approved for flammable liquids, away from heat and ignition sources. Keep containers tightly closed. Incompatible materials: strong oxidizing agents, strong acids and strong bases.
See section 2 for further details. - [Storage]

**Specific end use(s)**
Industrial and laboratory solvent use. No other specific end uses identified.

## Section 8. Exposure controls / personal protection

**Control parameters**

**Exposure Limits**

| CAS No. | Ingredient | Source | Value |
|---|---|---|---|
| 97-64-3 | Ethyl lactate | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |

**Exposure controls**

**Respiratory** No occupational exposure limits have been established. If ventilation is inadequate or vapors cause irritation, use a NIOSH-approved air-purifying respirator with organic vapor cartridges; use a supplied-air respirator for high or unknown concentrations. Follow a respiratory protection program meeting OSHA 29 CFR 1910.134.

**Eyes** Wear tightly fitting chemical splash goggles; add a face shield where splashing is possible. Do not wear contact lenses. An eyewash station and safety shower should be readily accessible.

**Skin** Wear chemical-resistant gloves (e.g. butyl rubber; confirm breakthrough

| | |
|---|---|
| | time with the glove manufacturer) and protective clothing to prevent skin contact. Flame-retardant, antistatic clothing is recommended where there is a fire risk. |
| **Engineering Controls** | Provide local exhaust and general ventilation sufficient to control vapor concentrations. Use explosion-proof electrical, ventilating and lighting equipment. |
| **Other Work Practices** | Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse. |

See section 2 for further details.

## Section 9. Physical and chemical properties

### Information on basic physical and chemical properties

| | |
|---|---|
| **Physical State** | Liquid |
| **Color** | Clear, Colorless |
| **Odor** | Mild, typical |
| **Odor threshold** | No available information |
| **Melting point / freezing point** | -15 °F / -26 °C |
| **Initial boiling point and boiling range** | 309 °F / 154 °C |
| **Flammability (solid, gas)** | Not Applicable |
| **Upper/lower flammability or explosive limits** | Lower Explosive Limit: 1.5 %(V) (212 °F / 100 °C)<br>Upper Explosive Limit: 11.4 %(V) (212 °F / 100 °C) |
| **Flash Point** | 115 °F / 46 °C |
| **Auto-ignition temperature** | 752 °F / 400 °C |
| **Decomposition temperature** | No available information |
| **pH** | No available information |
| **Kinematic viscosity** | No available information |
| **Solubility in Water** | Soluble (100 g/L at 68 °F / 20 °C) |
| **Partition coefficient n-octanol/water (Log Kow)** | log Pow: ca. 0.7 (77 °F / 25 °C) |
| **Vapor pressure** | 3 hPa / 2.3 mmHg (68 °F / 20 °C) |

| | |
|---|---|
| **Relative density (water = 1)** | 1.031 (77 °F / 25 °C) |
| **Vapor density (air = 1)** | 4.07 |
| **Evaporation rate (Ether = 1)** | No available information |
| **Oxidising properties** | No available information |
| **Explosive properties** | Not classified as explosive |
| **Molecular Weight** | 118.13 g/mol |

**Other information**
No other relevant information.

## Section 10. Stability and reactivity

**Reactivity**
Flammable liquid. Vapor/air mixtures are explosive at elevated temperatures.
**Chemical stability**
Stable under normal storage and handling conditions. Slowly hydrolyzes in the presence of water, acids or bases to lactic acid and ethanol.
**Possibility of hazardous reactions**
May react with strong oxidizing agents. Hazardous polymerization will not occur.
**Conditions to avoid**
Heat, sparks, open flames, hot surfaces and other ignition sources; contact with incompatible materials.
**Incompatible materials**
Strong oxidizing agents, strong acids, strong bases.
**Hazardous decomposition products**
Thermal decomposition and combustion may produce carbon monoxide and carbon dioxide.

## Section 11. Toxicological information

**Acute toxicity**

Acute toxicity data for the substance are shown below. The substance does not meet the OSHA HCS criteria for classification for acute toxicity.

| Ingredient | Oral LD50, mg/kg | Skin LD50, mg/kg | Inhalation Vapor LC50, mg/L/4hr | Inhalation Dust/Mist LC50, mg/L/4hr | Inhalation Gas LC50, ppm |
|---|---|---|---|---|---|
| Ethyl lactate - (97-64-3) | 8,200, Rat - Not classified | > 5,000, Rabbit - Not classified | No data available. | No data available. | No data available. |

## Carcinogen Data

| CAS No. | Ingredient | Source | Value |
|---|---|---|---|
| 97-64-3 | Ethyl lactate | OSHA | Regulated Carcinogen: No; |
| | | NTP | Known: No; Suspected: No; |
| | | IARC | No |
| | | ACGIH | Not listed |

| Classification | Category | Hazard Description |
|---|---|---|
| Acute toxicity (oral) | --- | Not classified |
| Acute toxicity (dermal) | --- | Not classified |
| Acute toxicity (inhalation) | --- | Not classified |
| Skin corrosion/irritation | 2 | Causes skin irritation. |
| Serious eye damage/irritation | 1 | Causes serious eye damage. |
| Respiratory sensitization | --- | Not classified |
| Skin sensitization | --- | Not classified |
| Germ cell mutagenicity | --- | Not classified |
| Carcinogenicity | --- | Not classified |
| Reproductive toxicity | --- | Not classified |
| STOT-single exposure | 3 | May cause respiratory irritation. |
| STOT-repeated exposure | --- | Not classified |
| Aspiration hazard | --- | Not classified |

**Possible routes of entry:**
Inhalation, ingestion, skin contact, and skin absorption.

**Symptoms and effects, both acute and delayed:**
Causes serious eye damage and skin irritation. May cause respiratory irritation; high vapor concentrations may cause headache, dizziness and drowsiness.
No chronic or long-term toxicity information available. Treat symptomatically.

**Inhalation** May cause respiratory irritation.
**Eyes** Causes serious eye damage.

**Skin** Causes skin irritation.

## Section 12. Ecological information

**Toxicity**
Not classified as hazardous to the aquatic environment. Substance-specific data are shown below.
**Aquatic Ecotoxicity**

| Ingredient | 96 hr LC50 fish, mg/L | 48 hr EC50 crustacea, mg/L | ErC50 algae, mg/L |
|---|---|---|---|
| Ethyl lactate - (97-64-3) | 320.00, Danio rerio | 560.00, Daphnia magna | 2,300.00, Pseudokirchneriella subcapitata |

**Persistence and degradability**
Readily biodegradable (ca. 70% in 28 days, OECD Test Guideline 301F).
**Bioaccumulative potential**
Low potential for bioaccumulation (log Pow ca. 0.7). Bioaccumulation is not expected.
**Mobility in soil**
Water soluble; expected to have very high mobility in soil.
**Results of PBT and vPvB assessment**
This product contains no PBT/vPvB/vPvM chemicals.
**Other adverse effects**
No available information

## Section 13. Disposal considerations

**Waste treatment methods**
Dispose of in accordance with all applicable federal, state and local regulations. Unused product and wastes with a flash point below 140 °F (60 °C) meet the definition of a RCRA characteristic ignitable hazardous waste (EPA waste code D001; 40 CFR 261.21). Do not discharge to drains or sewers. Empty containers retain product residue and vapors; do not cut, weld, drill or expose to heat or ignition sources.

## Section 14. Transport information




| | US DOT (Surface Transportation) | IMO / IMDG (Ocean Transportation) | ICAO/IATA |
|---|---|---|---|
| **UN number** | UN1192 | UN1192 | UN1192 |
| **UN proper shipping name** | Ethyl lactate | Ethyl lactate | Ethyl lactate |
| **Transport hazard class(es)** | Class: 3<br>Sub Class: Not Applicable | Class: 3<br>Sub Class: Not Applicable | Class: 3<br>Sub Class: Not Applicable |
| **Packing group** | III | III | III |

**Environmental hazards**

IMDG Marine Pollutant: No;

**Special precautions for user**

IMDG EmS: F-E, S-D.
US DOT: a Class 3 liquid with a flash point at or above 100 °F (38 °C) may be reclassified as a combustible liquid for domestic transport (49 CFR 173.150(f)); this does not apply to hazardous waste shipments.

## Section 15. Regulatory information

**Regulatory Overview** The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

## SARA 311/312 Hazard Categories:

Flammable (gases, aerosols, liquids, or solids); Skin corrosion or irritation; Serious eye damage or eye irritation; Specific target organ toxicity (single or repeated exposure).

## Toxic Substance Control Act (TSCA)

| CAS Number | Ingredient | Toxic Substance Control Act (TSCA) | Comments | Status |
|---|---|---|---|---|
| 97-64-3 | Ethyl lactate | Yes | | ACTIVE |

The following flags are used:
•Active - indicates commercial status designation of active
•E - indicates a substance that is the subject of a Section 5(e) Consent Order under TSCA.
•F - indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
•N - indicates a polymeric substance containing no free-radical initiator in its Inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
•P - indicates a commenced Premanufacture Notice (PMN) substance.
•R - indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
•S - indicates a substance that is identified in a final Significant New Uses Rule.
•SP - indicates a substance that is identified in a proposed Significant New Uses Rule.
•T - indicates a substance that is the subject of a final Section 4 test rule under TSCA.
•UVCB Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials •XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
•Y1 - indicates a polymer that has a number-average molecular weight greater than 1,000 and that was exempt under the 1984 polymer exemption rule.
•Y2 - indicates a polymer that is a polyester and that was exempt under the 1984 polymer exemption rule.

## EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

## EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

## Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

## Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Female Repro Toxins (>0.0%):**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Male Repro Toxins (>0.0%):**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 Label Warning:**
This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**Mass RTK Substances (>1%) :**

Ethyl lactate

**New Jersey RTK Substances (>1%):**

Ethyl lactate

**Pennsylvania RTK Substances (>1%):**

Ethyl lactate

**OSHA Process Safety Management Standard Highly Hazardous Chemicals, Toxics and Reactives:**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**US EPA List of Regulated Substances under the Risk Management Plan (RMP) Program:**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**US EPA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) under the**

**Minimum Risk Exemption:**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**U.S. - DEA List II or Essential Chemicals:**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**U.S. - DEA - Exempt Chemical Mixtures - List 1 and 2:**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**US DHS Chemical Facility Anti-Terrorism Standards (CFATS):**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**CERCLA Chemicals and RQs:**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

## Section 16. Other information

**Revision Date** 29 October, 2026

**DISCLAIMER OF RESPONSIBILITY**
The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

The full text of the H-statements appearing in Sections 2 and 3 is:

H226 Flammable liquid and vapor.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

**End of Document**