1 Identification of the substance/mixture and of the company

· **Product identifier**
  · **Trade name:** ELThinner
  · **Product number:** M010100
  · **CAS Number:** 97-64-3
  · **EC number:** 202-598-0
  · **Index number:** 607-129-00-7

· **Application of the substance / the mixture** Thinner, Diluent

· **Details of the supplier of the safety data sheet**
  · **Manufacturer/Supplier:** MicroChem Corp.
    200 Flanders Road
    Westborough, MA 01581 USA
  · **Information department:** Product Safety
  · **Email:** productsafety@microchem.com
  · **Emergency telephone number:**
    MicroChem Corp: 617-965-5511
    Chemtrec USA Emergency: 800-424-9300
    Chemtrec International Emergency: 703-527-3887

2 Hazard(s) identification

· **Classification of the substance or mixture**
  
<table>
<thead>
<tr>
<th>Pictogram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS02</td>
<td>Flame</td>
</tr>
<tr>
<td>Flam. Lig. 3  H226</td>
<td>Flammable liquid and vapor.</td>
</tr>
<tr>
<td>GHS05</td>
<td>Corrosion</td>
</tr>
<tr>
<td>Eye Dam. 1  H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>GHS07</td>
<td></td>
</tr>
<tr>
<td>STOT SE 3  H335-H336</td>
<td>May cause respiratory irritation. May cause drowsiness or dizziness.</td>
</tr>
</tbody>
</table>

· **Label elements**
  · **GHS label elements**
    The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**
  
  ![GHS02](image1) ![GHS05](image2) ![GHS07](image3)
Trade name: ELThinner

- **Signal word** Danger
- **Hazard-determining components of labeling:**
  Ethyl lactate
- **Hazard statements**
  H226 Flammable liquid and vapor.
  H318 Causes serious eye damage.
  H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
- **Precautionary statements**
  P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
  P280 Wear protective gloves/protective clothing/eye protection/face protection.
  P233 Keep container tightly closed.
  P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P312 Call a POISON CENTER or doctor/physician if you feel unwell.
  P370+P378 In case of fire: Use for extinction: Alcohol resistant foam.
  P370+P378 In case of fire: Use for extinction: Fire-extinguishing powder.
  P370+P378 In case of fire: Use for extinction: Carbon dioxide.
  P403+P235 Store in a well-ventilated place. Keep cool.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
  - **NFPA ratings** (scale 0 - 4)
    - Health = 2
    - Fire = 2
    - Reactivity = 0
  - **HMIS-ratings** (scale 0 - 4)
    - Health = 2
    - Fire = 2
    - Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization:** Substances
  - **CAS No. Description**
    - 97-64-3 ethyl lactate
  - **Identification number(s)**
    - EC number: 202-598-0
    - Index number: 607-129-00-7

### 4 First-aid measures

- **Description of first aid measures**
  - **General information:** Immediately remove any clothing soiled by the product.
Trade name: ELThinner

- After inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water and then consult a doctor.
- After swallowing: Do not induce vomiting unless instructed to do so by a physician. Wash out mouth with water and keep person at rest. Seek immediate medical attention.

- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  - Alcohol resistant foam
  - Fire-extinguishing powder
  - Carbon dioxide
- For safety reasons unsuitable extinguishing agents:
  - Water with full jet
  - Water
- Special hazards arising from the substance or mixture:
  - Containers may explode due to pressure increase when container is exposed to extreme heat. Vapors may travel a considerable distance to a source of ignition and flash back along vapor trail.
- Advice for firefighters:
  - Protective equipment: Wear SCBA.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures:
  - Wear protective equipment. Keep unprotected persons away.
  - Ensure adequate ventilation.
  - Keep away from ignition sources.
- Environmental precautions:
  - Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Ensure adequate ventilation.
  - Dispose contaminated material as waste according to Section 13.
- Reference to other sections:
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- Handling:
- Precautions for safe handling:
  - Keep receptacles tightly sealed.
  - Ensure good ventilation/exhaust at the workplace.
Trade name: ELThinner

- Keep away from heat and direct sunlight.
- **Information about protection against explosions and fires:**
  - Keep ignition sources away - Do not smoke.
  - Use explosion-proof apparatus / fittings and spark-proof tools.
  - Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - **Requirements to be met by storerooms and containers:**
    - No special requirements.
    - Store in a cool location.
  - **Information about storage in one common storage facility:**
    - Do not store together with oxidizing and acidic materials.
    - Do not store together with alkalis (caustic solutions).
  - **Further information about storage conditions:**
    - Keep container tightly sealed.
    - Protect from heat and direct sunlight.
    - Store receptacle in a well ventilated area.
    - Store under lock and key and with access restricted to technical experts or their assistants only.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - Keep away from food and beverages.
    - Immediately remove all soiled and contaminated clothing.
    - Wash hands before breaks and at the end of work.
    - Avoid contact with the eyes.
  - **Respiratory equipment:**
    - In case of low exposure, use cartridge respirator.
    - In case of intensive or longer exposure, use SCBA.
- **Protection of hands:**
  - **Protective gloves**
    - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
    - Contact glove manufacturer for break-through time.
  - **Material of gloves**
    - Butyl rubber, BR
    - Nitrile rubber, NBR
  - **Penetration time of glove material** Contact glove manufacturer for break-through time.
### 9 Physical and chemical properties

**· Information on basic physical and chemical properties**

**· General Information**

- **Appearance:**
  - Form: Liquid
  - Color: Colorless
- **Odor:** Fruit-like
- **Odour threshold:** Not determined.
- **pH-value at 20 °C (68 °F):** 4

**· Change in condition**

- **Melting point/Melting range:** -25 °C (-13 °F)
- **Boiling point/Boiling range:** 154 °C (309 °F)

**· Flash point:** 46 °C (115 °F)

**· Flammability (solid, gaseous):** Not applicable.

**· Ignition temperature:** 400 °C (752 °F)

**· Decomposition temperature:** Not determined.

**· Auto igniting:** Not determined.

**· Danger of explosion:** Not determined.

**· Explosion limits:**
  - Lower: 1 Vol %
  - Upper: 17 Vol %

**· Vapor pressure at 20 °C (68 °F):** 2 hPa (2 mm Hg)

**· Density at 20 °C (68 °F):** 1.03 g/cm³ (8.595 lbs/gal)

**· Relative density**

- Not determined.

**· Vapour density**

- Not determined.

**· Evaporation rate**

- < 1

**· Solubility in / Miscibility with Water:** Fully miscible.

**· Partition coefficient (n-octanol/water):** Not determined.

**· Viscosity:**

- Dynamic: Not determined.
- Kinematic: Not determined.
- Organic solvents: 0.0 %
- **Other information:** No further relevant information available.
Safety Data Sheet
acc. to OSHA HCS

Trade name: ELThinner

10 Stability and reactivity

- Reactivity
- Chemical stability: Stable under normal use conditions
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: Heat, flames and sparks. Extremes of temperature and direct sunlight.
- Incompatible materials: Strong Oxidizing Agents, Strong Acids, Strong Bases
- Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    
    | Substance       | Oral LD50 | Dermal LD50 | Inhalative LC50 8 hr |
    |------------------|-----------|-------------|----------------------|
    | 97-64-3 Ethyl lactate | 8200 mg/kg (Rat) | 5000 mg/kg (rabbit) | 5.4 mg/l (Rat) |

- Primary irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: Strong irritant with the danger of severe eye injury.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    Substance is not listed.
  - NTP (National Toxicology Program)
    Substance is not listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity:
    
    | Substance       | LC50/96 h | LC50/96 h (zebra fish) |
    |------------------|-----------|-----------------------|
    | 97-64-3 Ethyl lactate | 320 mg/l | 320 mg/l (zebra fish) |

- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes:
  - Water hazard class 1 (Self-assessment): slightly hazardous for water
  - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

(Contd. on page 7)
Safety Data Sheet
acc. to OSHA HCS

Trade name: ELThinner

Other adverse effects: No further relevant information available.

13 Disposal considerations

Waste treatment methods
Recommendation:
Must not be disposed of as regular garbage/trash. Do not allow product to reach sewage system. Disposal must be made in accordance with Federal, State, and Local regulations.

Uncleaned packagings:
Recommendation: Disposal must be made in accordance with Federal, State, and Local regulations.

14 Transport information

UN-Number
DOT, ADR, IMDG, IATA
UN1192

UN proper shipping name
DOT, IMDG, IATA
ETHYL LACTATE
ADR
1192 ETHYL LACTATE

Transport hazard class(es)

DOT

Class
3 Flammable liquids.
Label
3

ADR, IMDG, IATA

Class
3 Flammable liquids
Label
3

Packing group
DOT, ADR, IMDG, IATA
III

Environmental hazards:

Marine pollutant:
No

Special precautions for user
Warning: Flammable liquids
Danger code (Kemler):
30
EMS Number:
F-E,S-D

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

UN "Model Regulation":
UN1192, ETHYL LACTATE, 3, III

(Contd. on page 8)
## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - **Sara**
    - **Section 355 (extremely hazardous substances):**
      - Substance is not listed.
    - **Section 313 (Specific toxic chemical listings):**
      - Substance is not listed.
    - **TSCA (Toxic Substances Control Act):**
      - Substance is listed.
  - **Proposition 65**
    - **Chemicals known to cause cancer:**
      - Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for females:**
      - Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for males:**
      - Substance is not listed.
    - **Chemicals known to cause developmental toxicity:**
      - Substance is not listed.
- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    - Substance is not listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    - Substance is not listed.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    - Substance is not listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    - Substance is not listed.
  - **Massachusetts State Right To Know List**
    - 97-64-3 | Ethyl lactate
  - **New Jersey State Right To Know List**
    - 97-64-3 | Ethyl lactate
  - **Pennsylvania Hazardous Substances List**
    - 97-64-3 | Ethyl lactate
- **California SCAQMD Rule 443.1 VOC's:** 1032 g/l

### GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

### Hazard pictograms

- GHS02
- GHS05
- GHS07

- **Signal word** Danger
Trade name: ELThinner

- Hazard-determining components of labeling:
  Ethyl lactate
- Hazard statements
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  P370+P378 In case of fire: Use for extinction: Carbon dioxide.
  P403+P235 Store in a well-ventilated place. Keep cool.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS: Product safety department
- Contact: Mr. Cole
- Revision History:
  The business address of the manufacturer in Section 1 was updated. The contact person in Section 16 was updated.
- Date of preparation / last revision 10/21/2014 / -
- Abbreviations and acronyms:
  RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  ICAO: International Civil Aviation Organization
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent