

## **MATERIAL SAFETY DATA SHEET**

### **1. Identification of the substance/mixture and of the company/undertaking**

#### **1.1 Product identifiers**

Product name: Ethyl acetate  
Product code: E001, E002, E066, E090, E999  
Brand: LEONID  
CAS-No.: 141-78-6  
Index No.: 607-022-00-5

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

Identified uses: Laboratory chemicals, Manufacture of substances

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

Company: Leonid Chemicals Pvt. Ltd  
Plot No. 30P2, KIADB Industrial Area  
Dobaspet – 562111  
Taluk – Nelamangala  
District – Bangalore Rural  
State – Karnataka  
India

#### **1.4 Emergency telephone number**

Emergency phone number: +91 23377126 / 23378254

### **2. Hazards identification**

#### **2.1 Classification of the substance or mixture**

##### **Classification according to Regulation (EC) No 1272/2008**

Flammable liquids (Category 2), H225  
Acute toxicity, Oral (Category 4), H302  
Acute toxicity, Inhalation (Category 3), H331  
Acute toxicity, Dermal (Category 3), H311  
Skin corrosion (Category 1A), H314  
Specific target organ toxicity - single exposure, Inhalation (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### **2.2 Label elements**

##### **Labelling according Regulation (EC) No 1272/2008**

Pictogram



Signal word

Danger

Hazard statement(s)

H225

Highly flammable liquid and vapour.

H319

Causes serious eye irritation.

H336

May cause drowsiness or dizziness

Precautionary statement(s)

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard information (EU)  
EUH066

Repeated exposure may cause skin dryness or cracking

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 3. Composition/information on ingredients

### 3.1 Substances

Formula: C<sub>4</sub>H<sub>8</sub>O<sub>2</sub>  
Molecular weight: 88.11 g/mol  
CAS-No.: 141-78-6  
EC-No.: 205-500-4  
Index-No.: 607-022-00-5  
Registration No.: 01-2119475103-46-XXXX

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component                                                                                                    | Classification                                                | Concentration |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------|
| <b>Ethyl acetate</b>                                                                                         |                                                               |               |
| CAS-No.: 141-78-6<br>EC-No.: 205-500-4<br>Index-No.: 607-022-00-5<br>Registration No.: 01-2119475103-46-XXXX | Flam. Liq. 2; Eye Irrit. 2;<br>STOT SE 3; H225, H319,<br>H336 | <= 100 %      |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

## 5. Firefighting measures

## 5.1 Extinguishing media

### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## 5.2 Special hazards arising from the substance or mixture

Carbon oxides

## 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

## 5.4 Further information

Use water spray to cool unopened containers.

# 6. Accidental release measures

## 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

## 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

## 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

## 6.4 Reference to other section

For disposal see section 13.

# 7. Handling and storage

## 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class (TRGS 510): Flammable liquids

## 7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

# 8. Exposure controls/personal protection

## 8.1 Control parameters

### Derived No Effect Level (DNEL)

| Application Area | Exposure routes | Health effect                               | Value                  |
|------------------|-----------------|---------------------------------------------|------------------------|
| Workers          | Inhalation      | Acute systemic effects                      | 1468 mg/m <sup>3</sup> |
| Workers          | Inhalation      | Acute local effects                         | 1468 mg/m <sup>3</sup> |
| Workers          | Skin contact    | Long-term systemic effects                  | 63mg/kg BW/d           |
| Workers          | Inhalation      | Long-term systemic effects                  | 734 mg/m <sup>3</sup>  |
| Workers          | Inhalation      | Long-term local effects                     | 734 mg/m <sup>3</sup>  |
| Consumers        | Inhalation      | Acute local effects, Acute systemic effects | 734 mg/m <sup>3</sup>  |
| Consumers        | Skin contact    | Long-term systemic effects                  | 37mg/kg BW/d           |

|           |            |                            |                       |
|-----------|------------|----------------------------|-----------------------|
| Consumers | Inhalation | Long-term systemic effects | 367 mg/m <sup>3</sup> |
| Consumers | Inhalation | Long-term systemic effects | 4.5mg/kg BW/d         |
| Consumers | Inhalation | Long-term local effects    | 367 mg/m <sup>3</sup> |

#### **Predicted No Effect Concentration (PNEC)**

| <b>Compartment</b>   | <b>Value</b> |
|----------------------|--------------|
| Soil                 | 0.24 mg/kg   |
| Marine water         | 0.026 mg/l   |
| Fresh water          | 0.26 mg/l    |
| Marine sediment      | 0.125 mg/kg  |
| Fresh water sediment | 1.25 mg/kg   |

## **8.2 Exposure control**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### **Appropriate engineering controls**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

### **Personal protective equipment**

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

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Splash contact

Material: Butyl rubber

Minimum layer thickness: 0.3 mm

Break through time: 113 min

Material tested: Butoject

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **Body Protection**

Impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                 |                                                                   |
|-------------------------------------------------|-------------------------------------------------------------------|
| a) Appearance                                   | Clear colourless liquid                                           |
| b) Odour                                        | No data available                                                 |
| c) Odour Threshold                              | No data available                                                 |
| d) pH                                           | No data available                                                 |
| e) Melting point/freezing point                 | Melting point/range: -84°C.                                       |
| f) Initial boiling point and boiling range      | 76.5 - 77.5 °C - lit.                                             |
| g) Flash point                                  | -2.99 °C - closed cup                                             |
| h) Evaporation rate                             | No data available                                                 |
| i) Flammability (solid, gas)                    | No data available                                                 |
| j) Upper/lower flammability or explosive limits | Upper explosion limit: 11.5%(V)<br>Lower explosion limit: 2.2%(V) |
| k) Vapour pressure                              | 73.0 mmHg at 20°C                                                 |
| l) Vapour density                               | No data available                                                 |
| m) Relative density                             | 0.90 g/mL at 20°C                                                 |
| n) Water solubility                             | Soluble                                                           |
| o) Partition coefficient: n-octanol/water       | log Pow: 0.73                                                     |
| p) Auto-ignition temperature                    | 427 °C                                                            |
| q) Decomposition temperature                    | No data available                                                 |
| r) Viscosity                                    | No data available                                                 |
| s) Explosive properties                         | No data available                                                 |
| t) Oxidizing properties                         | No data available                                                 |

### 9.2 Other safety information

|                 |                    |
|-----------------|--------------------|
| Surface tension | 24.0 mN/m at 20 °C |
|-----------------|--------------------|

## 10. Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Heat, flames and sparks

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

## 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat – 5,620 mg/kg (Ethyl acetate)

LC50 Inhalation - Mouse - 2 h – 45,000 mg/m3 (Ethyl acetate)

LD50 Dermal - Rabbit - 18000 mg/kg (Ethyl acetate)

#### Skin corrosion/irritation

Skin – Rabbit (Ethyl acetate)

Result: Mild skin irritation.

(OECD Test Guideline 404)

#### **Serious eye damage/eye irritation**

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) (Ethyl acetate)

#### **Respiratory or skin sensitisation**

No data available (Ethyl acetate)

#### **Germ cell mutagenicity**

No data available (Ethyl acetate)

#### **Carcinogenicity**

This product is or contains a component that is not classifiable as to its classification. (Ethyl acetate) (Ethyl acetate)

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.

#### **Reproductive toxicity**

No data available (Ethyl acetate)

#### **Specific target organ toxicity - single exposure**

May cause drowsiness or dizziness. (Ethyl acetate)

#### **Specific target organ toxicity - repeated exposure**

No data available.

#### **Aspiration hazard**

No data available (Ethyl acetate)

#### **Additional Information**

RTECS: AH5425000

Inhalation of high concentrations may cause: Headache, Drowsiness, Dizziness, Vomiting, narcosis, anemia, Central nervous system depression (Ethyl acetate)

Kidney - Irregularities - Based on Human Evidence (Ethyl acetate)

## **12. Ecological information**

### **12.1 Toxicity**

|                                                     |                                                                                         |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------|
| Toxicity to fish                                    | LC50 - Oncorhynchus mykiss (rainbow trout) – 350.00 – 600.00 mg/l 96 h (Ethyl acetate)  |
|                                                     | LC50 - Pimephales promelas (fathead minnow) – 220.00 – 250.00 mg/l 96 h (Ethyl acetate) |
| Toxicity to daphnia and other aquatic invertebrates | EC50 - Daphnia magna (Water flea) - 2,300.00 - 3,090.00 mg/l – 24 h (Ethyl acetate)     |
|                                                     | LC50 - Daphnia magna (Water flea) - 560 mg/l - 48 h (Ethyl acetate)                     |
| Toxicity to algae                                   | EC50 - Algae - 4,300.00 mg/l - 24 h (Ethyl acetate)                                     |
|                                                     | EC50 - Algae - 4,300.00 mg/l - 24 h (Ethyl acetate)                                     |

### **12.2 Persistence and degradability**

Biodegradability Result: 79 % - Readily biodegradable.  
(OECD Test Guideline 301D)

**12.3 Bioaccumulative potential**

Bioaccumulation - 3 d (Ethyl acetate)

Bioconcentration factor (BCF): 30

**12.4 Mobility in soil**

No data available (Ethyl acetate)

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

No data available

**13. Disposal considerations**

**13.1 Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company..

**Contaminated packaging**

Dispose of as unused product.

**14. Transport information**

**14.1 UN number**

ADR/RID: 1173

IMDG: 1173

IATA: 1173

**14.2 UN proper shipping name**

ADR/RID: ETHYL ACETATE

IMDG: ETHYL ACETATE

IATA: Ethyl acetate

**14.3 Transport hazard class(es):**

ADR/RID: 3

IMDG: 3

IATA: 3

**14.4 Packaging group**

ADR/RID: II

IMDG: II

IATA: II

**14.5 Environmental hazards**

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

**14.6 Special precautions for user**

No data available

**15. Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out.

**16. Other information**

Full text of H-Statements referred to under sections 2 and 3.

EUH066

Repeated exposure may cause skin dryness or cracking.

H225

Highly flammable liquid and vapour.

H319

Causes serious eye irritation.

H336

May cause drowsiness or dizziness.

#### **Further information**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Leonid Chemicals Pvt. Ltd. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Leonid Chemicals Pvt. Ltd. has been advised of the possibility of such damages.