

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

PRODUCT : LEVULINIC ACID 97%
Chemical name : 4-oxovaleric acid
CAS : 123-76-2
EC Number : 204-649-2
Registration number (REACH) : --/--
Index No.:

1.2 Relevant identified uses of the substance or mixture

Industrial uses. Formulation [mixing] of preparations.
Uses advised against: Other uses than those recommended.
{?/TIPOREG}
{?/EEXP}

1.3 Details of the supplier of the safety data sheet

Lluch Essence, SL
C/ Lo Gaiter de Llobregat 160, 08820 El Prat de Llobregat, Barcelona (Spain - Spain)
Phone Number: +34 93 379 38 49; Fax: +34 93 478 27 54.

1.4 Emergency telephone number

Tel. +34 933 793 849 (8:00 - 17:00 GMT/UTC +1)
Tel. +1 760 476 3961 Access Code: 335550 (available 24/7 - Verisk 3E)
More emergency telephones by region:
<http://www.lluche.com/Emergencytelephones.pdf>.

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification in accordance with Regulation (EC) No 1272/2008**

Acute toxicity (oral), Hazard Category 4; H302
Skin corrosion/irritation, Hazard Category 2; H315
Serious eye damage/eye irritation, Hazard Category 2; H319.

2.2 Label elements

EC Number: 204-649-2
4-oxovaleric acid



Signal word: Warning

Hazard Statements:

H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.

Precautionary Statements:

P280: Wear protective gloves/eye protection/face protection.
P301+P312: IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
P302+P352: IF ON SKIN: Wash with plenty of water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

Not available.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Concentration range of the constituent (% weight/weight)	EC number / Registration number	CAS	Chemical name
≥50% and ≤100	204-649-2	123-76-2	4-oxovaleric acid

SECTION 4: First aid measures**4.1 Description of first aid measures**

Consumption:	If swallowed, rinse mouth with water. Seek medical advice immediately and show this container or label. Keep the person at rest. Do NOT induce vomiting.
Eye contact:	Contact lenses should be removed. Hold eyelids open and flush with copious amounts of clean, fresh water and seek medical advice.
Inhalation:	Remove person to fresh air and keep at rest.
Skin contact:	Remove contaminated clothing. Wash skin with mild soap and water, rinse abundantly. If symptoms persist, obtain medical attention.

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

Irritating to skin or mucous membranes (inflammation). If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract. Causes serious eye irritation.

Read label before use. No additional information available.

4.3 Indication of any immediate medical attention and special treatment needed

Not available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Carbon dioxide, dry chemical powder or appropriate foam.
For safety reasons do not use full water jet.

5.2 Special hazards arising from the substance or mixture

Not applicable.

5.3 Advice for firefighters

In case of fire in the surrounding area, follow the recommendations below:

- 1-Closed containers may build up pressure at elevated temperatures.
- 2-Avoid inhalation of fumes or vapours. Use appropriate respiratory protection.
- 3-Prevent run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear appropriate gloves to prevent skin exposure.
Avoid breathing vapours. Use a suitable respiratory apparatus if necessary. Avoid contact with eyes and skin.
Maintain adequate ventilation in the working area after spilling.

6.2 Environmental precautions

Avoid contaminating the environment via the sewers or water sources.

6.3 Methods and material for containment and cleaning up

Cover with an inert, inorganic, non-combustible absorbent material (e.g. dry-lime, sand, soda ash).
Ventilate area and wash spill site after material pickup is complete.
Dispose of in accordance with current laws and regulations.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep away from food, drink and animal feedingstuffs. Do not smoke.

Avoid contact with skin and eyes.

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Keep the product in its original container well sealed, in a dry and ventilated area, away from potential sources of ignition and protected from light. Store in accordance with local/national regulations and follow the warnings on the label.

Keep away from incompatible substances (see section 10).

7.3 Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Declaration of substances is not required.

8.2 Exposure controls

Personal protection equipment: Appropriate personal protective equipment shall be worn in accordance with Regulation (EU) 2016/425.

Engineering Controls-Ventilation: The areas where the product is handled and stored should be adequately ventilated.

Respiratory Protection: Use personal breathing apparatus whenever deemed necessary.

Skin Protection: Avoid contact with skin. Compatible chemical-resistant gloves are recommended. Rinse and remove gloves immediately after use. Wash hands with soap and water thoroughly after handling.

Eye/Face protection: Chemical safety goggles are recommended. Wash contaminated goggles before reuse.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	FREEZING LIQUID
Colour:	YELLOW
Odour:	ACIDIC, BURNT, SWEATY
Odour threshold:	Not determined
pH value:	Not determined
Evaporation rate:	Not determined
Melting point:	30 - 33 °C
Boiling point:	Not determined
Flash point:	98 °C
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Vapour pressure:	Not determined
Vapour density:	Not determined
Density:	1.130 - 1.150 g/cm ³ (20 °C)
Water solubility:	Not determined
Partition coefficient: n-octanol/water:	Not determined
Viscosity:	Not determined
Kinematic viscosity:	Not determined
Oxidising properties:	Not available.
Explosive properties:	Not available.
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined

9.2 Other information

Additional information: Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity

Not available.

10.2 Chemical stability

Stable under normal operating conditions.

10.3 Possibility of hazardous reactions

Hazardous Polymerization: It does not undergo any dangerous reactions under normal conditions.

10.4 Conditions to avoid

Handle in accordance with good industrial hygiene and safety practice.

10.5 Incompatible materials

Oxidizing mineral acids, strong reducing agents, strong oxidizing agents.

10.6 Hazardous decomposition products

Carbon monoxide and other unidentified organic compounds may be formed upon combustion.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity (LD50):	1850 mg/kg
Acute dermal toxicity (LD50):	Non toxic
Acute Inhalation toxicity (LC50 Gas):	Non toxic
Acute Inhalation toxicity (LC50 Dusts and Mists):	Non toxic
Acute Inhalation toxicity (LC50 Vapours):	Non toxic

See also sections 2 and 3.

SECTION 12: Ecological information

12.1 Toxicity

Acute aquatic toxicity: Non toxic

Chronic aquatic toxicity: Non toxic

See also sections 2 and 3.

12.2 Biodegradation:

Not determined

12.3 Bioaccumulative potential:

Not determined

12.4 Mobility in soil:

Not available.

12.5 Results of PBT and vPvB assessment:

Not determined

12.6 Other adverse effects:

Not available.

Do not allow the material to enter streams, sewers or other waterways.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Container disposal: Containers must be disposed of as hazardous waste. Do not reuse empty containers. Dilute the remaining material and neutralise. Empty residue into a suitable disposal site.

Disposal conditions: Dispose of in accordance with all state and local environmental regulations. This material and its container must be disposed of in a safe way.

SECTION 14: Transport information**International Carriage of Dangerous Goods by Road (ADR)**

UN No.:	Not applicable
Proper Shipping Name:	Not subject to ADR.
Packing Group:	-
Class:	-
Tunnel restriction code:	-
Label:	-

Sea Transport (IMDG)

UN No.:	Not applicable
Proper Shipping Name:	Not restricted.
Packing Group:	-
Class:	-
Subsidiary hazard:	-
Marine Pollutant:	No
Label:	

Air Transport (ICAO/IATA)

UN No.:	Not applicable
Proper Shipping Name:	Not restricted.
Packing Group:	-
Class:	-
Subsidiary hazard:	-
Label:	

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Substances are either included in EINECS, ELINCS, NLP inventories or exempted.

15.2 Chemical safety assessment

Not available.

SECTION 16: Other information

This material should only be used for industrial purposes.

Key literature references and sources for data:

1. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
2. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
3. Occupational Exposure Limits by the INSHT (Spanish National Institute of Safety and Hygiene at Work).

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SAFETY DATA SHEET

LEVULINIC ACID 97%

(according to Regulation (EU) No. 1907/2006)

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Lluch Essence

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