

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

PRODUCT : GAMMA-HEPTALACTONE  
Chemical name : Heptan-4-olide  
CAS : 105-21-5  
EC Number : 203-279-9  
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**

This substance is not classified as dangerous according to Regulation (EC) No 1272/2008.

**2.2 Label elements**

EC Number: 203-279-9  
Heptan-4-olide

Signal word: -

This substance is not classified as dangerous according to Regulation (EC) No 1272/2008.

**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	203-279-9 01-2120789748-28	105-21-5	Heptan-4-olide

**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:**

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. Wear suitable gloves (EN 374).  
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:	LIQUID
Colour:	COLORLESS - PALE YELLOW
Odour:	COUMARINIC, SWEET, HERBACEOUS
Odour threshold:	Not determined
pH value:	Not determined
Evaporation rate:	Not determined
Melting point:	Not determined
Boiling point:	88 °C
Flash point:	108 °C
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Vapour pressure:	Not determined
Vapour density:	Not determined
Density:	0.985 - 1.002 g/cm <sup>3</sup> (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):	Non toxic
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: Do not reuse empty containers.

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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Reason for Change: No reason (reprint).