

# Safety Data Sheet

## 1. IDENTIFICATION OF THE SUBSTANCES/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1. Product Identifiers**
- Product Code(s)** HB3842
- Product Name** clasto-Lactacystin  $\beta$ -lactone
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
- Recommended use** For research use only – Not for human use
- Uses advised against** No information available
- 1.3. Details of the supplier of the safety data sheet**
- Supplier**
- HelloBio Ltd  
Unit 3 IO Centre  
Cabot Park  
Moorend Farm Avenue  
Avonmouth  
Bristol  
BS 11 0QL  
UK  
Tel: +44 (0)117 318 0505  
Fax: +44 (0)1179 811 601
- For further information, please contact: [technicalsupport@hellobio.com](mailto:technicalsupport@hellobio.com)
- 1.4. Emergency Telephone number**
- Emergency telephone** - Tel: +44 (0)117 318 0505

## 2. HAZARDS IDENTIFICATION

- 2.1. Classification of the substance or mixture**
- GHS/CLP – REGULATION (EC) No 1272/2008**
- |   |            |
|---|------------|
| Acute oral toxicity                                       | Category 3 |
| Skin Corrosion/irritation                                 | Category 2 |
| Serious eye damage/eye irritation                         | Category 2 |
| Specific target organ systemic toxicity (single exposure) | Category 3 |
- DSD/DPD – Classification according to EU Directives 67/548/EEC or 1999/45/EC**
- T - Toxic
- R23/24/25 – Toxic by inhalation, in contact with skin and if swallowed

## 2.2. Label Elements



### Signal Word

Danger

### Hazard Statements

H301 – Toxic if swallowed  
H315 – Causes skin irritation  
H319 – Causes serious eye irritation  
H335 – May cause respiratory irritation

### Precautionary Statements

P301 + P310 - IF SWALLOWED: Immediately call POISON CENTER or doctor/physician  
P305 + P351 + P338 – IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
P302 + P352 -IF ON SKIN: Wash with plenty of soap and water  
P260 - Do not breathe dust/fume/gas/mist/vapours/pray  
P262 - Do not get in eyes, on skin, or on clothing  
P280 - Wear protective gloves/ eye protection/ face protection  
P284 - Wear respiratory protection  
P361 - Remove/Take off immediately all contaminated clothing  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
P330 - Rinse mouth  
P501 - Dispose of contents/ container to an approved waste disposal plant  
P405 - Store locked up  
P363 - Wash contaminated clothing before use

### Other hazards

Caution – substance not yet completely tested

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Product Name: clasto-Lactacystin  $\beta$ -lactone  
Synonyms:  
Formula:  $C_{10}H_{15}NO_4$  Molecular Weight: 213.23  
CAS Number 154226-60-5

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

**General advice** If symptoms persist, call a physician.

<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If symptoms persist, call a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<b>Ingestion</b>	Rinse mouth. If symptoms persist, call a physician
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician.

**4.2. Most important symptoms and effects, both acute and delayed**

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**4.3. Indication of immediate medical attention and special treatment needed**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

## 5. FIRE-FIGHTING 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**

In combustion, may emit toxic fumes.

**5.3. Precautions for fire-fighters**

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

**6.1. Personal precautions, protective equipment and emergency procedures**

Do not take action without suitable protective clothing – see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapours, mist, dust or gas.

**6.2. Environmental precautions**

Do not let product enter drains.

**6.3. Methods and materials for containment and cleaning up**

Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

**6.4. Reference to other sections**

For required PPE see section 8. For disposal see section 13.

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

### 7.2. Conditions for safe storage, including any incompatibilities.

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Recommended storage temperature: Store at +4°C

### 7.3. Specific end uses

Use in a laboratory fume hood where possible. Refer to employer's COSHH risk assessment.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### 8.2. Exposure controls

#### Appropriate engineering controls

Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

#### Personal protective equipment

##### Eye/face protection

Use appropriate safety glasses.

##### Skin protection

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

##### Body protection

Wear appropriate protective clothing.

##### Respiratory protection

If risk assessment indicates necessary, use a suitable respirator.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Appearance	White solid	Vapour pressure	No data available
Odour	No data available	Vapour density	No data available
Odour threshold	No data available	Relative density	No data available
pH	No data available	Solubility(ies)	Dimethylsulfoxide Water
Melting/freezing point	No data available	Partition coefficient	No data available
Boiling point/range	No data available	Auto-ignition temperature	No data available
Flash Point	No data available	Decomposition temperature	No data available
Evaporation rate	No data available	Viscosity	No data available
Flammability (solid, gas)	No data available	Explosive properties	No data available
Upper/lower flammability or explosive limits	No data available	Oxidising properties	No data available

**9.2. Other safety information**

No data available

## 10. STABILITY AND REACTIVITY

**10.1. Reactivity**

Stable under recommended transport or storage conditions.

**10.2. Chemical Stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

Hazardous reactions will not occur under normal transport or storage conditions.

**10.4. Conditions to avoid**

Heat, moisture

**10.5. Incompatible materials**

Strong acids/alkalis, strong oxidising/reducing agents.

**10.6. Hazardous decomposition products**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>).

## 11. TOXICOLOGICAL INFORMATION

**11.1. Information on toxicological effects**

**Acute Toxicity**

**Inhalation** No Information available

**Eye contact** No Information available

**Skin contact** No Information available

**Ingestion** No Information available

**Chronic toxicity**

**Corrosivity** No Information available

**Sensitization** No Information available

**Neurological effects** No Information available

**Reproductive toxicity** No Information available

**Mutagenic effects** No Information available

**Target Organ Effects** No Information available

## 12. ECOLOGICAL INFORMATION

**12.1. Toxicity  
Ecotoxicity effects**

As supplied, the preparation is not expected to present significant adverse environmental effects

**12.2. Persistence and degradability**

No Information available

- 12.3. **Bioaccumulative potential**  
No Information available
- 12.4. **Mobility in soil**  
No Information available
- 12.5. **Results of PBT and vPvB assessment**  
No Information available
- 12.6. **Other adverse effects**  
No Information available

## 13. DISPOSAL CONSIDERATIONS

- 13.1. **Waste treatment methods**
  - Waste from residues/unused products**  
Dispose of in accordance with local regulations
  - Contaminated packaging**  
Empty containers should be taken to an approved waste handling site for recycling or disposal.
  - Other information**  
According to the European Waste Catalogue. Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

## 14. TRANSPORT INFORMATION

<b>ADR</b>	Excepted Quantity
<b>Proper shipping name</b>	Toxic solid, organic, n.o.s. (clasto-Lactacystin $\beta$ -lactone)
<b>Hazard Class</b>	6.1
<b>UN/ID No</b>	2811
<b>Packing Group</b>	III
<b>IATA</b>	Excepted Quantity
<b>Proper shipping name</b>	Toxic solid, organic, n.o.s. (clasto-Lactacystin $\beta$ -lactone)
<b>Hazard Class</b>	6.1
<b>UN/ID No</b>	2811
<b>Packing Group</b>	III
<b>DOT</b>	Excepted Quantity
<b>Proper shipping name</b>	Toxic solid, organic, n.o.s. (clasto-Lactacystin $\beta$ -lactone)
<b>Hazard Class</b>	6.1
<b>UN/ID No</b>	2811
<b>Packing Group</b>	III

## 15. REGULATORY INFORMATION

- 15.1. **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No information available

**15.2. Chemical Safety Assessment**  
No information available

## **16. OTHER INFORMATION**

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

### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless stated in the text.