SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1 Product identifier:......LALLZYME HP[™]

1.2 Identified use:For use in wine making

1.3 Supplier details:LALLEMAND DENMARK A/S

Vejlevej 10 Fredericia

DK-7000 Denmark

Tel: +45 75 91 50 80

Email: scourdesses@lallemand.com

1.4 Emergency telephone: Contact your local doctor or hospital. In the European Union, call 112. Contacts of national emergency information services are available at:

http://echa.europa.eu/web/guest/support/helpdesks/national-helpdesks/list-of-national-helpdesks

SECTION 2 - HAZARD IDENTIFICATION

2.1 Classification of the substance/mixture according to the Globally Harmonized System (GHS) and to the Regulation 1272/2008/CE (CLP):

Classification: Respiratory Sensitizer Category 1.

2.2 Labelling according to the Globally Harmonized System (GHS) and to the Regulation 1272/2008/CE (CLP):

Signal Word: Danger

Hazard Pictogram:



Hazard Statement:

• H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precaution Prev:

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P285 In case of inadequate ventilation wear respiratory protection.

Precaution Resp:

- P304 + 341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P342 + 311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P501 Dispose of contents/container according to the local regulations.

2.3 Other Hazards: The substance is not considered as a PBT or VPVB substance.



SECTION 3 - INFORMATION ON INGREDIENTS

Mixture or substance: mixture.

| Ingredient name | CAS no. | CE no. | % of active in mix | IUB | CLP Hazard Classification (Reg. 1272/2008) |
|-------------------|-----------|-----------|--------------------------|----------|--|
| Polygalacturonase | 9032-75-1 | 232-885-6 | 1% - 10% | 3.2.1.15 | Respiratory Sensitizer Cat.1; H334 |

See Section 16 for the full text of the H phrase declared above.

The other ingredients are not listed as they have no impact on the classification.

SECTION 4 – FIRST AID MEASURES

4.1 Description of First Aid Measures:

| ec | rotection of rescue workers: Wear appropriate individual protective quipment (see Section 8). Transport the affected person into the open air. emove contaminated shoes and clothing. |
|-------------------------------|---|
| ge | the event of inhalation, take into the open air. Do not allow the person to et cold. Keep the victim resting in a semi-seated position. In the absence breathing, use artificial respiration. Consult a doctor. |
| | the event of ingestion, rinse the mouth with water (only if the person is onscious). Consult a doctor if symptoms develop. |
| | inse thoroughly in running water. Remove contaminated shoes and othing. Consult a doctor if symptoms develop. |
| Contact with the eyes:R | inse thoroughly in running water. Consult a doctor if symptoms develop. |
| | nsure that automatic eye baths and safety showers are located close to the orkstations. |
| 4.2 Most important symptoms | s and effects, both acute and delayed: |
| Eye contact: M | ay cause irritation of the eyes (redness). |
| Skin contact:Pi | rolonged or repeated contact with the skin may cause irritation. |
| Si | lay cause coughing (irritation) or irritate asthma. May cause sensitization. ubsequent chronic or acute exposure in sensitized persons may cause a espiratory allergic reaction, including asthmatic bronchitis, in minutes or elayed. |
| Ingestion: In | gestion of the product may elicit gastrointestinal problems. |
| 4.3 Indication of any immedia | ate medical attention and special treatment needed: |

None. If any symptoms persist, seek medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

| 5.1 Extinguishing media: | | |
|---|---|--|
| Suitable: | .Water, foam, carbon dioxide, dry powder. | |
| Unsuitable: | None | |
| 5.2 Special hazards arising from the material: None | | |
| 5.3 Advice to firefighters: | | |

Wear a self-contained breathing apparatus (SCBA) when exposed to confined or enclosed fires as product powder could be in the air.











SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid contact with the eyes, skin and clothing. Use appropriate protective equipment (see Section 8).

6.2 Environmental precautions: None

6.3 Methods and material for containment and cleaning up:

Small accidental spillage or leak: Avoid the formation of dust or spray. Mop up with appropriate material. Place in an appropriate container. Clean the area affected with plenty of water.

Large accidental spillage or leak: Avoid the formation of dust or spray. Prevent spillage into the drains, subsoil or confined areas. Contain if necessary. Mop up the product spilled with inert material (e.g. dry sand or dry earth) and place in a chemical waste container. Recycle if possible.

6.4 References to other sections:

See section 8 for individual protective equipment and section 13 for waste disposal.

SECTION 7 - HANDLING & STORAGE

7.1 Precautions for safe handling:

Handling:...... Avoid breathing dust. Avoid contact with eyes. Occupational hygiene: Wash hands thoroughly after handling.

7.2 Conditions for safe storage:

Risks: Not at risk for corrosion, fire, explosion, or chemical reaction.

Place of storage:...... No special instruction to minimize risks (see above). Store according to label directions to maintain label guarantees. Fire/explosion protection: ... None needed 7.3 Specific end use:....... None

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 <u>Control parameters:</u> Exposure limits: No limit

Environmental exposure: None

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

9.1 <u>Information on basic physical and chemical properties:</u>

Appearance: Brown liquid

Odour: Not Applicable

Solubility: Water dispersible

Odour threshold; pH; Melting point/Freezing point; Initial boiling point and boiling range; Flash point; Evaporation rate; Flammability; Vapour pressure; Vapour density; Relative density; Partition coefficient (n-octanol/water); Auto-ignition temperature; Decomposition temperature; Viscosity; Explosive properties; Oxidising properties: Not Applicable

9.2 Other information: None









SECTION 10 - STABILITY AND REACTIVITY

| 10.1 Reactivity: | Not reactive |
|--|--------------|
| 10.2 Chemical stability: | |
| 10.3 Possibility of hazardous reactions: | |
| 10.4 Conditions to avoid: | None |
| 10.5 Incompatible materials: | None |
| 10.6 Hazardous decomposition products: | None |

SECTION 11 - TOXICOLOGICAL INFORMATION

| 11.1 Information on toxicological effects: | |
|---|--|
| Acute toxicity: | No known effects |
| Skin corrosion/irritation: | Possible irritation to skin |
| Eye damage/irritation: | Possible irritation to eye |
| Respiratory /Skin sensitization: | Possible allergic reaction or sensitization |
| CMR (Carcinogenity, germ cell Mutagenicity, Reproductive toxi | city): No known effects |
| Chronic effects: | Once sensitised, a strong allergic reaction may be |
| | triggered upon later exposure to very low levels. |

SECTION 12 - ECOLOGICAL INFORMATION

| 12.1 Toxicity: | . No known ecological effects |
|--|--|
| 12.2 Persistence and degradability: | No persistence and the substance is bio-degradable |
| 12.3 Bioaccumulative potential: | None |
| 12.4 Mobility in soil: | Not relevant |
| 12.5 Results of PBT and vPvB assessment: | Not relevant |
| 12.6 Other adverse effects: | None |

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Product and packaging can be disposed of in regular trash or waste. No special disposal method required. Follow all applicable local laws for recycling, bagging, and disposal of trash.

SECTION 14 - TRANSPORT INFORMATION

| 14.1 UN Number: | Not relevant |
|---|---|
| 14.2 UN proper shipping name: | Not relevant |
| 14.3 Transportation hazard class: | Not classified as dangerous |
| 14.4 Packing group: | Not relevant |
| 14.5 Environmental hazards: | None |
| 14.6 Special precautions: | None |
| 14.7 Transport in bulk according to Annex I | I of MARPOL 73/78 and the IBC code: Not relevant. |



SECTION 15 - REGULATORY INFORMATION

15.1 <u>Safety, health and environmental regulations/legislation specific for the substance or mixture:</u>

The format of this safety data sheet complies with the requirements of **Globally Harmonised System** of **Classification and Labelling of Chemicals (GHS)**.

Other EU regulations:

- Regulation EC 1272/2008 on the classification, labelling and packaging of substances and mixtures.
- Commission Delegated Regulation (EU) 2019/934 of 12 March 2019 supplementing Regulation (EU) No 1308/2013 of the European Parliament and of the Council as regards wine-growing areas where the alcoholic strength may be increased, authorised oenological practices and restrictions applicable to the production and conservation of grapevine products, the minimum percentage of alcohol for by-products and their disposal, and publication of OIV files.
- Regulation (EC) No 1332/2008 on food enzymes.

Regulation EC 1907/2006 REACH is not applicable to the product.

15.2 Chemical safety assessment:

No chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16 - OTHER INFORMATION

Disclaimer:

The information, data and recommendations contained in this SDS are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date of revision. The SDS serves as description of the products in regard to necessary safety measures. No warranty, expressed or implied, regarding the product described in this SDS shall be created or inferred by any statement in this SDS.

Revisions:

| N° | Date | Revisions |
|----|----------------|--|
| 1 | September 2016 | Templates creation in conformity with EC Regulation 1907/2006 |
| | | Graphical charter updating |
| | | Revision in conformity with EC Regulation 830/2015 Revision Section 1 "Product group" |
| 2 | Month 2020 | Revision Section 15 "Regulatory Information" Revision dates wording |
| | | Graphical charter updating |

This document is valid for three years unless superseded or otherwise indicated.

