

SAFETY DATA SHEET

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

1.1 Product identifier: **Aromazyme™**
1.2 Identified use: For use in brewing
1.3 Supplier details: DANSTAR FERMENT AG
Subsidiary of Lallemand Inc.
Vejlevej 10
Fredericia
DK-7000 Denmark
Tel: +45 76 22 32 88 Email: brewingdanstar@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)
<i>Polygalacturonase</i>	9032-75-1	232-885-6	1% - 10%	3.2.1.15	Respiratory Sensitizer Cat.1; H334
<i>β-Glucosidase</i>	9001-22-3	232-589-7	1% - 10%	3.2.1.21	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.

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SECTION 4 – FIRST AID MEASURES

4.1 Description of First Aid Measures:

General information:Protection of rescue workers: Wear appropriate individual protective equipment (see Section 8). Transport the affected person into the open air. Remove contaminated shoes and clothing.

Inhalation:In the event of inhalation, take into the open air. Do not allow the person to get cold. Keep the victim resting in a semi-seated position. In the absence of breathing, use artificial respiration. Consult a doctor.

Ingestion:In the event of ingestion, rinse the mouth with water (only if the person is conscious). Consult a doctor if symptoms develop.

Contact with the skin:Rinse thoroughly in running water. Remove contaminated shoes and clothing. Consult a doctor if symptoms develop.

Contact with the eyes:Rinse thoroughly in running water. Consult a doctor if symptoms develop.

First aid facilities:Ensure that automatic eye baths and safety showers are located close to the workstations.

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

Eye contact:.....May cause irritation of the eyes (redness).

Skin contact:.....Prolonged or repeated contact with the skin may cause irritation.

Inhalation:.....May cause coughing (irritation) or irritate asthma. May cause sensitization. Subsequent chronic or acute exposure in sensitized persons may cause a respiratory allergic reaction, including asthmatic bronchitis, in minutes or delayed.

Ingestion:.....Ingestion of the product may elicit gastrointestinal problems.

4.3 Indication of any immediate 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.

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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 Control parameters:

Exposure limits: No limit
Biological limits: No limit

8.2 Exposure controls:

Engineering: None
Eye/face protection: Protective glasses should be worn in conditions of excessive dusting.
Skin: Hand: Gloves are recommended. Wash and dry hands.
Other: None. Wear appropriate clothing for work.
Respiratory protection: P3 protective mask should be worn.
Thermal protection: None
Environmental exposure: None

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance: White/grey powder
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: Stable

10.3 Possibility of hazardous reactions: None

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 (Carcinogenicity, germ cell Mutagenicity, Reproductive toxicity): No known effects
Chronic effects: Once sensitised, a strong allergic reaction may be triggered upon later exposure to very low levels.

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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 II of MARPOL 73/78 and the IBC code: Not relevant.

SECTION 15 - REGULATORY INFORMATION

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

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.
- Regulation EC No 606/2009 of 10 July 2009 laying down certain detailed rules for implementing Council Regulation (EC) No 479/2008 as regards the categories of grapevine products, oenological practices and the applicable restrictions.

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.

Revision date: September 2016 - The whole datasheet has been revised to ensure conformity with EC Regulation 1907/2006 (consolidated version).

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