

Kerry Food Ingredients (Cork) Limited

Kilnagleary, Carrigaline, Cork Ireland

Phone: +353214376400 Fax: +353214376480

PRODUCT SPECIFICATION

PRODUCT DETAILS

Product Name Bioglucanase GB (25Kg)

Kerry Code 20267853

Legacy

Product Description Bioglucanase GB is a betaglucanase enzyme preparation derived from

Trichoderma reesei which also contains cellulase and hemicellulase activities. The activities present in Bioglucanase GB are effective in the degradation of the complex carbo- hydrates found in plant cell walls. This product is made from a natural raw material and as such may be subject to some batch to batch colour and/or odour variation, but these variations are not an indicator of

enzyme activity and do not impact on product performance.

INGREDIENT LISTING

Water, Enzyme, Glycerol, Sucrose, Sodium Chloride, Sodium Benzoate, Potassium Sorbate

USAGE / APPLICATION INFORMATION

Treatment with Bioglucanase GB in the brewing process results in the degradation of of high molecular weight non starch polysaccharides such as beta glucan and arabinoxylan.

Benefits

- · Reduces wort viscosity
- Increases run off rates
- Reduces beer haze problems
- · Increases extract yield
- Allows new, more cost effective, local raw material sources to be used, but maintains final product integrity
 Reduces total cost and carbon footprint

The dose rate used is typically in the range 0.005-0.015% on grist.

KEY PARAMETERS

Test	Min	Max	Units
Betaglucanase	1900	2300	u/ml

MICROBIOLOGICAL DATA

Total Viable Count <50000 cfu/g
Coliforms <30 cfu/g
E. coli Absent/25 g
Salmonella Absent/25 g

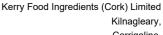
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ALLERGEN DATA				
Allergen	Present Yes/No			
Beef and products thereof	No			
Carrot and products thereof	No			
Celery and products thereof	No			
Cereals containing gluten(1)	No			
Chicken meat and products thereof	No			
Cocoa and products thereof	No			
Coriander and products thereof	No			
Corn/maize and products thereof	No			
Crustaceans and products thereof	No			
Egg and products thereof	No			
Fish and products thereof	No			
Glutamate and products thereof	No			
Milk and products thereof (including lactose)	No			
Mustard and products thereof	No			
Nuts (other than peanuts) and products thereof(2)	No			
Molluscs and products thereof	No			
Legumes and products thereof	No			
Lupin and products thereof	No			
Peanuts and products thereof	No			
Pork and products thereof	No			
Sesame Seeds and products thereof	No			
Soybeans and products thereof	No			
Sulphur Dioxide/Sulphites > 10ppm	No			
Wheat and products thereof(3)	No			

Definitions conform to Regulation (EU) 1169/2011 as amended, US Food Allergen Labelling and Consumer Protection Act (FALCP) and ALBA-List.

- (1) i.e. wheat, rye, barley, oats, spelt, kamut or their hybridised strain
- (2) Nut allergens: Almond Prunus dulcis (Rosaceae) Beech nut Fagus spp. (Fagaceae), Brazil nut Bertholletia excelsa (Lecythidaceae), Butternut Juglans cinerea (Juglandaceae), Cashew Anacardium occidentale (Anacardiaceae), Chesnut (Chinese, American, European, Seguin) Castanea spp. (Fagaceae), Chinquapin Castanea pumila (Fagaceae), Coconut Cosos nucifera L. (Arecaceae (alt. Palmae)), Fibert/Hazelnut Corylus spp. (Betulaceae), Ginko nut Ginkgo biloba L. (Ginkgoaceae), Hickory nut Carya spp. (Juglandaceae), Lichee nut Litchi chinensis Sonn. (Sapindaceae), Macadamia nut/Bush nut Macadamia spp. (Proteaceae), Pecan Carya illinoiesis (Juglandaceae), Pine nut/Pinon nut Pinus spp. (Pineaceae), Pili nut Canarium ovatum (Burseraceae), Pistachio Pistacia vera L. (Anacardiaceae), Sheanut Vitellaria paradoxa (Sapotaceae), Walnut (English, Persian, Black, Japanase, California), Heartnut, Juglans spp. (Juglandaceae)

(3)i.e. common wheat, durum wheat, club wheat, spelt, semolina, Einkorn, emmer, kamut and triticale

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SUITABILITY DATA

Yes = Suitable, Comment/Certification Status

No = Unsuitable

Vegetarian (Ova-lacto) Yes

Halal Certified Comment
Kosher Certified Suitable
Certified Suitable

NUTRITION INFORMATION

Nutrient	Typical Value	Unit
Energy	454	kJ/100 g
Energy	108	kCal/100 g
Total Carbohydrates	1	g/100 g
Total Fat	0	g/100 g
Protein	8	g/100 g
Moisture	50	g/100 g
Ash	2	g/100 g

Data Source

Values quoted are typical and should be used for guidance purposes only.

GMO STATUS

This product is not a GMO. The production strain is not present in the final enzyme product. The production strain has not been improved by means of modern biotechnology.

PROCESS SUMMARY

Kerry has implemented and maintains food hygiene standards and HACCP Plans in line with the requirements of food legislation.

The Carrigaline, Co Cork site is certified against the requirements of FSSC22000 and ISO14001.

RECOMMENDED SHELF-LIFE & STORAGE

Transport & Storage Conditions: Temperature controlled transport is not required, but prolonged storage

should be dry, at 18°C or below. When stored at 18°C or below, product will maintain at least 95% activity for a minimum of 12 months. After this time

period reassay is advisable.

Shelf life (original package): 365 days (12 months)

PACKAGING

Pack Size (Net) 25 Kg

Pack Type Inner Plastic drums
Pack Type Outer Plastic drums

HEALTH & SAFETY DATA

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Liquid enzyme products may cause skin or eye irritation and inhalation of aerosol can result in sensitisation of susceptible individuals. Standard handling procedures should be followed to prevent direct contact with the product or inhalation of aerosol." & chr (10) & "A separate Safety Data Sheet (SDS) is available on request.

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LEGISLATION & WARRANTY STATEMENT

We warrant that the product is manufactured in accordance with the specification and is manufactured and packaged in compliance with all EU food and food safety legislation applicable to products of this nature at time of manufacture and sale by us. We warrant that the product also complies with the food purity specifications for food-grade enzymes recommended by the JECFA and recommended in the Food Chemical Codex.

We make no further warranty in relation to the product or as to the suitability of the product for any specific purpose or application. The user should satisfy itself as to the suitability of the product as an ingredient in a specific application or for any use whatsoever. The information supplied in this specification sheet is in accordance with our product formulation, is also based on manufacturing plant data and on data provided by our raw material suppliers and is accurate to the best of our knowledge at the date of issue of this specification. Local national regulations should also be consulted by user in relation any specific application and in relation to appropriate ingredient declarations as legislation may vary from country to country.

CONFIDENTIALITY

This document and the information contained within it remains the property of Kerry Group and must not be disclosed to any third party without prior written permission of the company.

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