

Product Technical Dossier

Product	Lactase 65,000 units/g Enzyme (L017P)
CCL Product Code	P12010

Specification Details

	Specification
Identification	Positive
Lactase Activity unit (u/g) [coefficient factor: 13.7249 supplier units= 1 ALU unit (FCC units), 1 supplier unit= 0.07286 ALU unit (FCC unit)] *Activity Unit Definition Lactase – One unit of enzyme activity is defined as that amount of enzyme that causes the release of one micromole of o-nitrophenol, per minute at pH 4.5 and 30°C	58,500 – 71,500 (u/g) (supplier units*) 4,262-5,210 (u/g) FCC units
Appearance	Powder
Colour	White to off White to Brown (**)
Aroma	Characteristic
Flavour	Characteristic

(**) Colour of product may vary from batch to batch. Colour is not an indication of enzyme activity.

Microbiological Limits

Total Viable Count	Max 50,000cfu/g
Coliforms	<30cfu/g
Yeasts & Moulds	Max 100cfu/g
E. Coli	Negative/25g
Salmonella	Negative/25g
Antibiotic Activity	Absent

Heavy Metal Limits

Lead (Pb)	Max 5ppm
Cadmium (Cd)	Max 0.5ppm
Mercury (Hg)	Max 0.5ppm
Arsenic (As)	Max 3ppm

Product Code: P12010

Version: 9

Page 1 of 8

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Additional Technical Information

Raw Material Full Botanical / Chemical Name	Beta-galactosidase
The material is Food Grade	Yes
Country of Origin	UK and Netherlands
Country of Manufacture	UK
Shelf Life from Date of Manufacture	Min 12 Months
Standard Used	FCC/JECFA/WHO/FAO recommendations for enzymes
Suitable for Vegetarians?	Yes
Suitable for Vegans?	Yes
Storage Conditions	0—20°C to achieve the documented shelf-life

Composition Origin, Function and Percentages

Ingredients	Function	% Composition	Source
Lactase enzyme	Active Ingredient	1.9%	Microbial; <i>Aspergillus sp.</i>
Dicalcium Phosphate	Diluent	95.7%	Mineral
Maltodextrin	Diluent	2.2%	Maize
Sodium Chloride	Preservative	<0.1%	Mineral/inorganic salt

Please note that surveillance testing may mean that not all the parameters stated on this specification are tested for every batch.

The allergen information is supplied by the manufacturer, we have not tested for each individual allergen to ensure they are not present. The information given is based on a documented risk assessment and is accurate to the best of our knowledge. If you intend to make a voluntary "free from" claim on your pack, additional testing may need to be carried out. For technical and labelling guidance, you should always speak to the competent authority for the market or member state in which the final products are placed.

Product Code: P12010

Version: 9

Page 2 of 8

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Allergens and Food Intolerances

Allergens	Product Contains YES/NO	Handled at Manufacture site YES/NO	Please see risk rating A to F listed below
Peanuts and Peanut Derivatives (including possible cross contamination)	No	No	F
Nut and Nut Derivatives <i>Almond (Amygdalus communis L.), Hazelnut (Corylus avellana), Walnut (Juglans regia), Cashew (Anacardium occidentale), Pecan nut (Carya illinoensis (Wangenh.) K. Koch), Brazil nut (Bertholletia excelsa), Pistachio nut (Pistacia vera), Macadamia nut and Queensland nut (Macadamia ternifolia)</i>	No	No	F
Sesame Seeds and Sesame Seed Derivatives	No	No	F
Milk and Milk Derivatives (including lactose)	No	Yes	C
Egg and Egg Derivatives	No	No	F
Cereals and Derivatives containing OR POTENTIALLY CONTAMINATED WITH Gluten <i>(wheat, wheatgrass, faro, freekeh, spelt, kamut, rye, oats, barley, barley grass)</i>	No	Yes	C
Soya and Soya Derivatives	No	Yes	E
Lupin and Lupin Derivatives	No	No	F
Mustard and Mustard Derivatives	No	Yes	F
Celery or Celery Derivatives (including Celeriac)	No	No	F
Fish and Fish Derivatives	No	No	F
Molluscs and their Derivatives	No	No	F
Crustaceans and their Derivatives	No	No	F
Sulphur Dioxide and Sulphites (E220, E228) at levels > 10mg/kg or 10mg/litre	No	Yes	C

A - Risk of contact at source during harvesting and may contain traces

B - Raw material handled on same line as other allergenic materials and may contain traces

C - Raw material handled on same line as other allergenic materials however formal control programme in place to minimise cross contact risk

D - Exempt from labelling according to EU regulations

E - Not handled on the same line

F - Not handled at manufacture site and therefore no risk of cross contamination

Product Code: P12010

Version: 9

Page 3 of 8

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Additives / Contaminants / Dietary Requirements / Intolerances	Product Contains YES/NO	Handled at Manufacture site YES/NO	Please see risk rating A to E listed below
Additives / E Numbers	Yes	Yes	Contains
Antioxidants	No	No	F
Ethylene Oxide	No	No	F
Gelatine	No	No	F
Flavourings (Artificial / Nature Identical / Natural / Smoked)	No	No	F
Maize / Corn and any Derivatives	Yes	Yes	Contains
Legumes / Pulses	No	No	F
Rice and Rice Derivatives	No	No	F
Added Salt	Yes	Yes	Contains
Added Sugar / artificial or natural sweeteners	No	Yes	C
Aspartame	No	No	F
BHA / BHT (E320 / E321)	No	No	F
Caffeine	No	No	F
Colours (Artificial / Nature Identical / Natural / Smoked)	No	No	F
Dextrose	No	Yes	E
Other Seeds and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds)	No	No	F
Fruits (Kiwi fruit, orange, banana, apple, peach)	No	No	F
Polyols (sugar alcohols)	No	Yes	C
Grapefruit	No	No	F
Sorbic Acid (E200, E203)	No	Yes	C
Any other Preservatives	No	Yes	C
Ethanol	No	Yes	E
Honey	No	No	F
Lactose	No	Yes	C
Yeast and Yeast Derivatives	No	Yes	E
All Animal Products (Beef, Pork, Poultry or other) and Derivatives (which may include growth/yield hormones, antibiotics etc.)	No	Yes	C
Bovine Products or Derivatives (which may include growth/yield hormones, antibiotics etc.)	No	Yes	C
Matsutake mushroom and Derivatives	No	No	F
Yam and Derivatives	No	No	F
Buckwheat and Derivatives	No	No	F
Palm Oil and Derivatives	No	Yes	C
Coconut and Derivatives	No	No	F

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Product Code: P12010

Version: 9

Page 4 of 8

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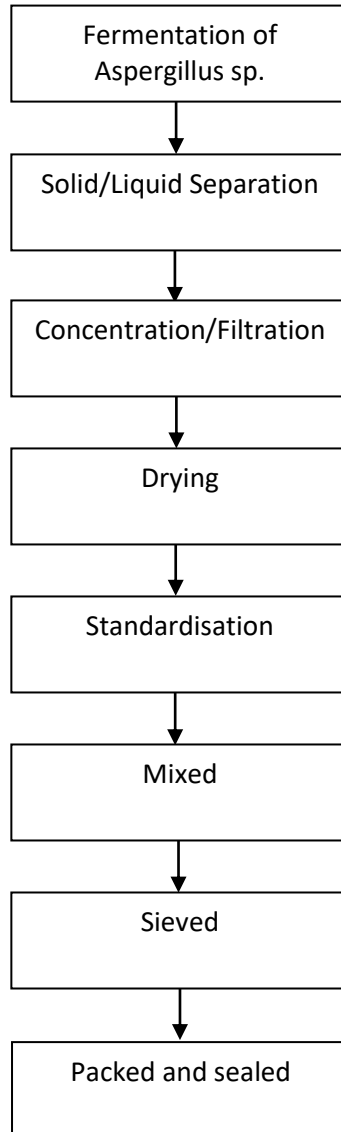
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Statements

<p>Confirmation of BSE / TSE Status This is to certify that this product complies with all relevant current UK and EU Legislative requirements in regard to Transmissible Spongiform Encephalopathies (TSE) and Bovine Spongiform Encephalopathy (BSE) for human food, and so is free of TSE/BSE.</p>	Yes
<p>This is also to certify that, during the course of their manufacture, the above-mentioned product did not come into contact with any materials, which could be derived from TSE/BSE risk materials.</p>	Yes
<p>Confirmation of GM Status This is to certify that this product is not manufactured from GM raw materials and is therefore not subject to labelling under current regulations.</p>	Yes
<p>Confirmation of Non-Irradiation Status This is to certify that this product, whole or in part, has not been subjected to Ionising Radiation as per European Directives.</p>	Yes
<p>Confirmation of Nandrolone Status This is to certify that this product, whole or in part, has not come into contact with Nandrolone or any of its precursors in any way.</p>	Yes
<p>Confirmation of IOC Product Status This is to certify that this product, whole or in part, has not come into contact with any product/s, which is banned by the IOC (International Olympics Committee) and or WADA.</p>	Yes
<p>Confirmation of Animal Testing Status This is to certify that all the products sold by Cambridge Commodities have not been tested on animals in any part of its manufacture in accordance with current regulations.</p>	Yes
<p>Confirmation of Pesticides Status This is to certify that the above-mentioned product complies with the EU max residue limits (MRLs) on pesticides.</p>	Yes
<p>Confirmation of Nanoparticles Status This is to certify that unless otherwise stated, the above-mentioned product is free of nanoparticles. Commission Recommendation, defines as follows: "Nanomaterial" means a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50 % or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm - 100 nm".</p>	Yes
<p>Packaging Status We hereby certify that the packaging used in the above-mentioned material conforms to EU regulations and subsequent amendments on food grade packaging</p>	Yes
<p>Confirmation of PAH status This is to certify that the above-mentioned product complies with the max PAH limits set by the EU regulations</p>	Yes



Product Flow Chart



Product Code: P12010

Version: 9

Page 6 of 8

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Material Safety Data Sheet

To download this product's material safety data sheet, please click [here](#) and search for the Cambridge Commodities product code. If there is no MSDS available, please follow the on-screen instructions to request one.

The Information provided in this document is subject to change and the batch specific certificate of analysis should always be referenced.

To be used as per local legislation.

Change History

Version	Change	Customer Notification required Yes / No
1	First Issue	N/A
2	Removal of cadmium field – not part of the JECFA specification for enzymes	N/A
3	Confirmed suitability for vegetarians and vegans, added production flowchart and amended tables to show supplier has allergens and contaminants on site although segregated.	No
4	Changed specification for Total Viable Count from <5x10cfu/g to Max 50,000cfu/g	Yes
5	<ul style="list-style-type: none"> Changed Colour from White to off White to White to off White to Brown Changed Mercury (Hg) from Max 0.1ppm to Max 0.5 ppm, Changed composition Changed storage conditions from store at <20°C to 0—20°C to achieve the documented shelf-life Updated allergens information egg, soy and sulphur dioxide and sulphites are not present on the site Updated additive table as per additives and corn contained and present on site, salt, sugars, dextrose, polyoils, lactose, sorbic acid, ethanol and yeast on site with no risk of cross contamination, removal of honey and other preservatives as not on site Updated flowchart Addition of cadmium max 0.5ppm, yeast and moulds Max 100 cfu/g, E Coli negative/10g and technical information General reformat. 	Yes
6	<ul style="list-style-type: none"> Changed Mercury (Hg) from Max 0.5ppm to Max 0.1ppm 	Yes
7	<ul style="list-style-type: none"> Added specification: 'Enzymatic Activity (FCC) 4,262-5210' with no change to product. 	Yes



8	Amended product name from Lactase 65,000 units/gm Enzyme to Lactase 4,262 FCC units (L017P). Add information on coefficient factor and supplier activity units' definition	Yes
9	Updated allergens/additives tables to show new allergens/contaminants on site at manufacturer (with no risk of contamination). Changed product name from "Lactase 4,262 FCC units (L017P)" to "Lactase 65,000 units/g Enzyme (L017P)", E-Coli from "Negative/10g" to "Negative/25g" & Mercury from "Max 0.1ppm" to "Max 0.5ppm".	Yes

Document Approval

Originator		Approver	
	Mel Lee Quality Administrator		Ash Bean Senior Quality Specialist
<small>x</small> 19/06/2023 14:16		<small>x</small> 20/06/2023 11:57	

Product Code: P12010

Version: 9

Page 8 of 8

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