

Kerry Food Ingredients (Cork) Limited

Kilnagleary, Carrigaline, Cork Ireland

Phone: +353214376400 Fax: +353214376480

PRODUCT SPECIFICATION

PRODUCT DETAILS

Product Name Convertase LD (IBC)

20669768 Kerry Code

Legacy

Product Description Convertase LD is an enzyme complex derived from a selected Aspergillus

> strain. The main activity in Convertase LD is glucoamylase which can hydrolyse sequentially both exo alpha 1,4 and alpha 1,6 glycosidic linkages and can therefore be used to degrade starch polymers and maltose to glucose. 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, Dextrose, Glycerol, Sodium Benzoate, Potassium Sorbate, Sodium Metabisulphite

USAGE / APPLICATION INFORMATION

Convertase LD is used in the production of cereal alcohol. The recommended dose rate is dependent on the type of process and raw material (cereal, starch) content. For any specific application, it is recommended that trials should be carried out in order to optimise the dose rate.

KEY PARAMETERS

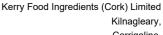
Test	Min	Max	Units
Glucoamylase (GAU)	230	280	u/ml

MICROBIOLOGICAL DATA

Total Viable Count <50000 cfu/q 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	Yes		
Wheat and products thereof(3)	No		

Note: All reasonable precautions that could be expected of a responsible manufacturer have been taken to prevent cross contamination in the raw materials used and in the manufacturing process. Product has been produced in a plant that handles cereals containing gluten (primary wheat flour).

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

KERRY

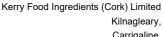
(2) Nut allergens: Almond Prunus dulcis (Rosaceae) Beech nut Fagus spp. (Fagaceae), Brazil nut Bertholletia excelsa (Lecythidaceae), Butternut Juglans cinerea (Juglandaceae), Cashew Anacardium occidentale (Anacardiaceae), Chesnut (Chinese, American, European, Seguin) Castanea spp.(Fagaceae), Chinquapin 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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Comment/Certification Status **SUITABILITY DATA** Yes = Suitable.

No = Unsuitable

Vegetarian (Ova-lacto) Ves

Certified / Not Certified Comment Halal Certified Suitable Certified Suitable Kosher

NUTRITION INFORMATION

KERRY

Nutrient	Typical Value	Unit
Energy	824	kJ/100 g
Energy	197	kCal/100 g
Total Carbohydrates	0	g/100 g
Total Fat	1	g/100 g
Protein	20	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.

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 10 months. After this time period

reassay is advisable.

Shelf life (original package): 304 days (10 months)

PACKAGING

Pack Size (Net) 1000 Kg

Pack Type Inner **IBC** Pack Type Outer **IBC**

HEALTH & SAFETY DATA

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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