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PRODUCT DESCRIPTION - PD 302841-1.1EN

Bonlacta™

Material no. A15018

Description

Bonlacta™ is a beta-galactosidase (lactase) that will be used in dairy application.

Application areas

Bonlacta™ is used to convert lactose in glucose and galactose, for the manufacturing of reduced & lactose free milk products (fluid milk, flavoured milk and condensed milk), cultured milk products (yoghurt, yoghurt drinks and cheese products), ice cream and whey products.

Potential benefits

- Reduces or eliminates the lactose level in dairy products, increases sweetness and thereby can contribute to sugar & calorie reduction, reduces lactose crystallization in dulce de leche.

Usage levels

Exact dose level should be determined by conducting trials and depending on conditions for the enzymation.

Directions for use

Bonlacta™ may be added to milk before pasteurization.

In milk, full enzyme inactivation is obtained at 75°C for 15 seconds.

Exact dose level should be determined by conducting trials and depending on conditions for the enzymation. Under standard conditions for hydrolyzing milk, the usage level for batch hydrolysis is typically 0.05-0.2% w/v for target hydrolysis within 6-24 hours. The usage level for in-line dosing is typically 0.02-0.05% w/v for target hydrolysis within 36-48 hours.

Composition

• Glycerine	45-55 % (w/w)
• Water	35- 45 % (w/w)
• Lactase	5-10 % (w/w)
• Magnesium chloride	4.5 - 5.5 % (w/w)

Physical/chemical specifications

Physical form	liquid
Colour*	clear, brown to dark brown
pH	6.0 - 7.5
Specific gravity	1.1 - 1.2
Lactase activity	min. 15250 SDLU/g

*Colour may vary from batch to batch.

Microbiological specifications

Total viable count	<100 CFU/ml
Coliforms	<1 CFU/ml
E.coli	absent in /25 ml
Salmonella	absent in /25 ml
Staphylococcus aureus	absent in /ml
Listeria monocytogenes	absent in /25 ml
Mould	<10 CFU/ml
Yeast	<10 CFU/ml
Anaerobic Sulfite-Reducing Bacteria	<30 CFU/ml
Production strain	NEG /ml
Antibacterial Activity	NEG /ml

Heavy metal specifications

Arsenic	<3 mg/kg
Cadmium	<0.5 mg/kg
Mercury	<0.5 mg/kg
Lead	<5 mg/kg

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Nutritional data

Energy	224/933 kcal/kJ
Fat	0 g
Protein	5-10 g
Carbohydrates	45-55 g
- Fiber	0 g
- Total sugar	0 g
- Added sugar	0 g
Moisture	35-45 g
Ash	5-10 g
Sodium	0 mg
Potassium	0 mg
Magnesium	598 mg
Calcium	0 mg

*other minor parameters not listed include Trans Fat, Saturated Fat, Cholesterol, Vit A, Vit C, Vit D, Iron, etc. are considered zero.

Storage

Bonlacta™ should be stored cool (below 10°C/50°F).

Optimal shipping conditions for long term storage and stability are recommended under refrigerated conditions.

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Ambient temperature (between 4 - 25°C) shipment is acceptable if the shipping duration is <7 days.

Packaging

5 kg plastic can

Purity and legal status

Bonlacta™ meets the specifications for enzyme preparation laid down by the Joint FAO/WHO Expert Committee on Food Additives and the Food Chemicals Codex.
Local regulations should always be consulted concerning the status of this product, as legislation regarding its intended use may vary from country to country.

Safety and handling

Enzymes are proteins. Enzyme exposure may cause respiratory allergy upon repeated exposure, use enzyme products under ventilation and/or closed processes. Respiratory protective equipment is recommended during open applications. Refer to the safety data sheet (SDS) or contact IFF for more information on enzyme safety and handling practices.

Kosher status

Bonlacta™ is certified kosher by the OU kosher certification.

Modern Biotechnology

The enzymes are manufactured by fermentation of microorganisms that are not present in the final product. The microorganisms have been optimized by means of modern biotechnology.

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Allergens

The table below indicates the presence (as added component) of the following allergens and products thereof.* Unless otherwise noted, the following listed allergens and products thereof have been used in the fermentation or recovery processes, or in the formulation of an enzyme product:

Yes	No	Allergens	Description of components
	(X)	Wheat	Glucose (used in fermentation)**
	X	Other cereals containing gluten	
	X	Crustaceans	
	X	Eggs	
	X	Fish	
	X	Peanuts	
	(X)	Soybeans	Soy (used in fermentation)**
	X	Milk (incl. lactose)	
	X	Nuts includes : Almond, Hazelnut, Cashew-nut, Brazilian-nut, Macadamia, Walnuts, Pecan, Pistachio, Pinoli and Chestnuts	
	X	Celery	
	X	Mustard	
	X	Sulphur dioxide and sulphites (>10 mg/kg)	
	X	Lupin	
	X	Molluscs	
	X	Natural Latex	
	X	Sesame seed	

*Local legislation has always to be consulted as allergen labeling requirements may vary from country to country. ** Based on risk assessments, IFF concludes that the amount of soybean or wheat proteins or protein fragments in the final food product to be de minimis and not likely to pose a risk to the final consumer. https://amfep.org/_library/_files/amfep-statement-on-labelling-of-substances-capable-of-causing-allergies-or-intolerances-present-in-food-enzyme-preparations.pdf