Product Data Sheet



1 of 2

Valid from 2012-02-14

Vinozym® FCE G

In this product the key enzyme activity is provided by

polygalacturonase that hydrolyzes (1,4)-alpha-D-galactosiduronic linkages in pectate and other galacturonans

PRODUCT CHARACTERISTICS/PROPERTIES

Declared enzyme	Polygalacturonase			
Declared activity	6700 PGNU/g			
Side activities	The product contains no significant activity of Cinnamoyl esterase			
Color	Off-white			
Physical form	Granulate			
Properties	Freeflowing, low-dusting			
Odor	Slight fermentation odor			
Solubility	Readily soluble			
Color can vary from batch to batch. Color intensity is not an indication				

Color can vary from batch to batch. Color intensity is not an indication of enzyme activity.

PRODUCT SPECIFICATION

	Lower Limit	Upper Limit	Unit
Pectinase unit PGNU	6700		/g
Total viable count		50000	/g
Coliform bacteria		30	/g
E.coli	Not Detected		/25 g
Salmonella	Not Detected		/25 g
Heavy metals		Max 30	mg/kg
Lead		Max 5	mg/kg
Arsenic		Max 3	mg/kg
Cadmium		Max 0.5	mg/kg
Mercury		Max 0.5	mg/kg

COMPOSITION

Ingredients	Appr. % (w/w)
Maltodextrin, CAS no. 9050-36-6	88.20
Polygalacturonase, CAS no. 9032-75-1*	4
Water, CAS no. 7732-18-5	3
Potassium chloride, CAS no. 7447-40-7	2
Trisodium citrate dihydrate, CAS no. 6132-04-3	2
Citric acid, CAS no. 77-92-9	0.80

*Defined as enzyme conc. (dry matter basis)

No preservatives added

ALLERGEN

Allergen	Substance contained	Allergen	Substance contained ¹
D (
Beef	no	Lactose	no
Carrot	no	Legumes	no
Celery	no	Lupin	no
Cereals containing gluten ²	no	Milk	no
Chicken meat	no	Molluscs	no
Cocoa	no	Mustard	no
Coriander	no	Nuts³	no
Corn/maize	no	Peanuts	no
Crustaceans	no	Pork	no
Egg	no	Sesame	no
Fish	no	Soy	no
Glutamate	no	Sulphur dioxide/sulphites, more than 10 mg per kg or l	no
	1	l I	I

 $^1\mathrm{Definition}$ of substances according to LeDa/ALBA and EU Directives 2000/13/EC and 2007/68/EC, as amended

²i.e.wheat, rye, barley, oats, spelt, kamut

³i.e. almond, hazelnut, walnut, cashew, pecan nut, Brazil nut, pistacchio nut, macadamia nut and Queensland nut

PRODUCTION ORGANISM

Production organism

Aspergillus niger Aspergillus aculeatus

Produced by submerged fermentation of micro organisms. The enzyme protein is separated and purified from the production organisms.

STORAGE CONDITION

Recommended storage: 0-25 °C (32-77 °F)

Packaging must be kept intact, dry, and away from sunlight. Please follow the recommendations and use the product before the best before date to avoid the need for a higher dosage.

Best before: You will find the best before date in the certificate of analysis or on the product label.

The product gives optimal performance when stored as recommended and used prior to the best-before date.

2 of 2

Vinozym® FCE G

SAFETY AND HANDLING PRECAUTIONS

Enzymes are proteins. Inhalation of dust or aerosols may induce sensitization and may cause allergic reactions in sensitized individuals. Some enzymes may irritate the skin, eyes, and mucous membranes upon prolonged contact. See the MSDS or Safety Manual for further information regarding safe handling of the product and spills.

COMPLIANCE

The product complies with the recommended purity specifications for food-grade enzymes given by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) and the Food Chemical Codex (FCC).

Kosher certificate is available from the Customer Center or sales representative.

Novozymes complies with OIV purity requirements as stated in chapter 7 "Hygiene and maximal level of contaminants" and if used as processing aid in the production of food the final product may be classified as "organic" by relevant authorized associations.

CERTIFICATIONS

Novozymes is a signatory to United Nations Global Compact, United Nations Convention on Biological Diversity and report on our sustainability performance through Global Reporting Initiative (GRI). See all our commitments under sustainability on www.novozymes.com.





FOOD SAFETY

Novozymes has carried out a hazard analysis and prepared an HACCP plan describing the critical control points (CCPs). The HACCP plan is supported by a comprehensive prerequisite program implemented in Novozymes' GMP practices.

The product is produced according to Novozymes' HACCP plan, GMP practices, and additional requirements controlled by Novozymes' Quality Management System.

The product complies with FAO/WHO JECFA- and FCC-recommended purity requirements regarding mycotoxins. The product complies with EU legislation regarding pesticides.

PACKAGING

The product is available in different types of packaging. Please contact the sales representative for more information.

Novozymes A/S Krogshoejvej 36 2880 Bagsvaerd Denmark

Tel. +45 4446 0000 Fax +45 4446 9999 For more information, or for more office addresses, visit www.novozymes.com

Laws, regulations and/or third party rights may prevent customers from importing, using, processing and/or reselling the products described herein in a given manner. Without separate, written agreement between the customer and Novozymes to such effect, this document does not constitute a representation or warranty of any kind and is subject to change without further notice.