

Vinozym® Process

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

Component name	Polygalacturonase
Activity	2800 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 of enzyme activity.

PRODUCT SPECIFICATION

	Lower Limit	Upper Limit	Unit
Pectinase unit PGNU	2800		/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	84.40
Polygalacturonase, CAS no. 9032-75-1*	9
Water, CAS no. 7732-18-5	4
Potassium chloride, CAS no. 7447-40-7	1
Trisodium citrate dihydrate, CAS no. 6132-04-3	1
Citric acid, CAS no. 77-92-9	0.60

*Defined as enzyme conc. (dry matter basis)

No preservatives added

ALLERGEN

Allergen	Substance contained ¹	Allergen	Substance contained ¹
Celery	no	Molluscs	no
Cereals containing gluten ^{2,4}	no	Mustard	no
Crustaceans	no	Nuts ³	no
Egg	no	Peanuts	no
Fish	no	Sesame	no
Lupin	no	Soy	no
Milk (including lactose)	no	Sulphur dioxide/sulphites, more than 10 mg per kg or l	no

¹Definition of substances according to EU Regulation 1169/2011, as amended. List covers allergens mentioned in 21 USC 301 (US) and GB 7718-2011 (China).

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

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

⁴ If No: Glutenfree i.e. < 20ppm (EU Regulation 828/2014)

NUTRITIONAL VALUES

The product has a typical nutritional value of approximately 1597 kJ/100 g enzyme product.

• Protein	9 g/100 g
• Carbohydrate	84 g/100 g
• Organic acid	1 g/100 g
• Ash	1 g/100 g
- Sodium	(0.24 g/100 g)
• Moisture	5 g/100 g

GM STATUS

This product is not a GMO.

Production organism: *Aspergillus aculeatus*

The enzyme product is manufactured by fermentation of a microorganism that is not present in the final product. The production organism is not modified using modern biotechnology.

Valid from 2017-09-05

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.

The product can be transported at ambient temperature. Following delivery, the product should be stored as recommended.

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.

For more information, or for more office addresses, visit www.novozymes.com

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