



Pectinex® ULTRA MASH

In this product the key enzyme activity is provided by

pectin lyase catalyzing eliminative cleavage of (1,4)-alpha-D-galacturonan methyl ester giving oligosaccharides with 4-deoxy-6-O-methyl-alpha-D-galact-4-enuronosyl groups at their non-reducing ends

PRODUCT CHARACTERISTICS/PROPERTIES

Declared enzyme	Pectin lyase
Declared activity	11000 PECTU/ml
Other activities	Polygalacturonase
Color	Brown
Physical form	Liquid
Approximate density (g/ml)	1.16
Odor	Slight fermentation odor
Solubility	Active component is readily soluble in water at all concentrations that occur in normal usage. Standardisation components can cause turbidity in solution.

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 PECTU	11000		/ml
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)
Glycerol, CAS no. 56-81-5	49.50
Water, CAS no. 7732-18-5	44
Pectin lyase, CAS no. 9033-35-6*	3
Polygalacturonase, CAS no. 9032-75-1*	3
Potassium chloride, CAS no. 7447-40-7	0.50

*Defined as enzyme conc. (dry matter basis)

No preservatives added

ALLERGEN

Allergen	Substance contained ¹	Allergen	Substance contained ¹
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	Nuts ³	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

¹Definition 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, pistachio nut, macadamia nut and Queensland nut

PRODUCTION ORGANISM

Production organism: *Aspergillus aculeatus*, *Aspergillus niger*

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

STORAGE CONDITION

Recommended storage: 0-10 °C (32-50 °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.

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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), and with relevant Chinese food safety and product standards for food-grade enzymes.

Kosher and Halal certificates are available from the Customer Center or sales representative.

If used as processing aid in the production of food the final product may be classified as "organic" by relevant authorised 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.

PACKAGING

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