# **Product Data Sheet**



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Valid from 2012-02-14

## Invertase®

#### In this product the key enzyme activity is provided by

beta-fructofuranosidase that hydrolyzes beta-D-fructofuranosides from terminal non-reducing end releasing beta-D-fructofuranoside residues

#### PRODUCT CHARACTERISTICS/PROPERTIES

Declared enzyme	Beta-fructofuranosidase
Declared activity	200000 SU/g
Color	Off-white
Physical form	Granulate
Properties	Freeflowing, low-dusting
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
Sumner unit	200000		/g
Total viable count		50000	/g
E.coli	Not Detected		/25 g
Coliform bacteria		30	/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)
Beta-fructofuranosidase, CAS no. 9001-57-4*	50
Maltodextrin, CAS no. 9050-36-6	40
Water, CAS no. 7732-18-5	10

<sup>\*</sup>Defined as enzyme conc. (dry matter basis)

No preservatives added

Allergen	Substance contained <sup>1</sup>	Allergen	Substance contained <sup>1</sup>
_ ,			
Beef	no	Lactose	no
Carrot	no	Legumes	no
Celery	no	Lupin	no
Cereals containing gluten <sup>2</sup>	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,	no
		more than 10 mg per kg	
		or I	

<sup>1</sup>Definition of substances according to LeDa/ALBA and EU Directives 2000/13/EC and 2007/68/EC, as amended

<sup>2</sup>i.e.wheat, rye, barley, oats, spelt, kamut

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

### PRODUCTION ORGANISM

Production organism

Saccharomyces cerevisiae

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

#### 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.

### 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.

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## Invertase®

#### 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**

The product is controlled by Novozymes' Quality Management System and is produced according to an HACCP plan supported by a comprehensive prerequisite program.

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

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