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TECHNICAL DATA SHEET

TDS-ENZ199-EN · REV. 02 · 2026-11-03

Bacterial Alpha Amylase Enzyme

Low-temperature alpha-amylase made by submerged fermentation of Bacillus subtilis, for starch hydrolysis and saccharification.

SKU **ENZ199** CATEGORY **SACCHARIFICATION** CAS **9000-90-2** GRADE **FOOD GRADE** EINECS **232-742-8**

Food grade · Produced by submerged fermentation · Not restricted for transport

DECLARED ACTIVITY	OPTIMUM TEMPERATURE	OPTIMUM PH	SHELF LIFE
3000 u/g	**70–75 °C**	**5.0–6.0**	**12 months**
as stated on the product page	working range 60–85 °C	working range pH 5.0–7.0	sealed, see storage below

SPECIFICATION

IDENTITY		
CAS	9000-90-2	Typical
Production organism	Bacillus subtilis	Typical
ACTIVITY		
Enzymatic activity	**≥ 3,000 U/g**	Spec
PHYSICAL		
Appearance	**Powder**	Spec
Loss on drying	≤ 8.0 %	Spec
Form	Powder	Typical
WORKING WINDOW		
Temperature range	60–85 °C	Typical
Optimum temperature	70–75 °C	Typical
pH range	5.0–7.0	Typical
Optimum pH	5.0–6.0	Typical
PURITY AND HYGIENE		
Lead	≤5.0 mg/kg	Typical
Arsenic	≤3.0 mg/kg	Typical
Total viable count	≤50000 CFU/mL	Typical
Salmonella	Not Detected (25 mL)	Typical

Spec = release limit, confirmed on every lot's Certificate of Analysis. **Typical** = normal product behaviour, not a release limit.

STORAGE & PACKAGING

SHELF LIFE
12 months

STORAGE
Keep sealed in a dry and cool place and avoid direct sunlight

PACK SIZE
1 kg per bag

ORDERING
Online or by e-mail; current price on the product page

APPLICATIONS

Hydrolyse starch in starch sugar processing for glucose, maltose, dextrin and oligosaccharides.
Degrades starch into dextrin, oligosaccharides and a small amount of glucose.

Degrade starch in alcohol fermentation and brewing.
Provides starch degradation where it is necessary.

Use in monosodium glutamate fermentation, organic acid production, textile and papermaking.
Provides starch degradation where it is necessary.

Use in rice wine, vinegar, antibiotic and citric acid processing.
Increases yield and reduces fermentation time.

DOSAGE

0.5–1.0 L per ton of dry starch

per ton of dry starch in starch sugar processing

Substrate	**Dry starch**
Industry	**Starch sugar industry**

Alcohol and ethanol industry: 0.6-1.2 L per ton of total raw materials.
Brewing industry: 0.4-0.8 L per ton of total raw materials, added at mashing-in.

Each lot is released against its specification; the lot Certificate of Analysis reports the measured values.

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Online: enzymes.bio/product/starch-hydrolysis-products-bacterial-alpha-amylase-enzyme

Enzyme preparations are proteins and may cause sensitization and allergic-type reactions; avoid prolonged skin and eye contact. This technical data sheet gives the product specification and typical values; it is not a batch certificate. A Certificate of Analysis for the supplied lot accompanies each shipment. Safety Data Sheet on request.

SCAN TO ORDER