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TECHNICAL DATA SHEET

TDS-ENZ124-EN · REV. 02 · 2026-11-03

Thermostable Alpha-amylase for Ethanol Industry

Thermostable alpha-amylase for high-temperature starch liquefaction in biofuel fermentation.

SKU **ENZ124** CATEGORY **ALPHA-AMYLASE** GRADE **FOOD GRADE** APPEARANCE **LIQUID** COLOUR **BROWN**

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

DECLARED ACTIVITY	OPTIMUM TEMPERATURE	OPTIMUM PH	SHELF LIFE
40000 u/g	**80°C-95°C**	**5.0-6.0**	**12 months**
as declared on the product page	working range 60°C-105°C	working range pH 4.5~7.5	sealed, see storage below

SPECIFICATION

PHYSICAL	
Appearance	Liquid Typical
Bulk density	1.05-1.20 g/ml Typical
Colour	Brown Typical
ACTIVITY	
Declared activity	**40000 u/g** Typical
WORKING WINDOW	
Working temperature range	60°C-105°C Typical
Optimum temperature	80°C-95°C Typical
Working pH range	4.5~7.5 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
Coliform bacteria	≤30 CFU/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
Cool, dry place in a sealed container; avoid insolation, high temperature and damp

PACK SIZE
1 kg / bag

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

APPLICATIONS

Liquefy starch for alcohol production
Reduces viscosity while starch gelatinizes

Liquefy starch for starch sugar production
Supports glucose, maltose, dextrin and fructose processing

Enable high-temperature starch liquefaction for biofuel fermentation
Liquefies starch at high temperature before fermentation

Use in brewing and beer production
Supports brewing, monosodium glutamate and organic acid processes

DOSAGE

0.3-0.6 L per ton

per ton of total raw materials, alcohol industry

pH	**5.5-6.5**
Temperature	**85-90°C**
Time	**around 120 minutes**

Beer: 0.2-0.5 L per ton of total raw materials, added at liquefaction.
Starch sugar: 0.4-0.5 L per ton of dry starch after pH adjustment, 100±5°C then 95-97°C for 60-120 minutes.

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

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Online: enzymes.bio/product/thermostable-alpha-amylase-for-starch-hydrolysis-in-ethanol-industry

Enzyme preparations are proteins and may cause sensitization; avoid direct skin contact and consult a doctor if irritation develops. 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