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TECHNICAL DATA SHEET

TDS-ENZ127-EN · REV. 02 · 2026-11-03

# Thermostable Alpha Amylase

Thermostable alpha-amylase for starch liquefaction in distilling and ethanol production.

SKU **ENZ127** CATEGORY **DISTILLING & SPIRITS ENZYMES** CAS **9000-90-2** GRADE **FOOD GRADE**

FORM **LIQUID**

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

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

## SPECIFICATION

| | | |
|---|---|---|
| **IDENTITY** | | |
| CAS number | 9000-90-2 | Typical |
| Appearance | Liquid | Typical |
| **ACTIVITY** | | |
| Declared activity | **40000 u/g** | Typical |
| **PHYSICAL** | | |
| Bulk density | 1.05–1.20 g/ml | Typical |
| Colour | Brown; can vary from batch to batch | Typical |
| **WORKING WINDOW** | | |
| Working temperature | 60–105 °C | Typical |
| Optimum temperature | 80–95 °C | Typical |
| Working pH | 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 |
| Salmonella | Not Detected in 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
**Cool, dry place in a sealed container; avoid sunlight, high temperature and damp**

PACK SIZE
**1 kg per bag; 25 L per drum; 1,125 L per drum**

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

## APPLICATIONS

**Liquefy starch before fermentation in ethanol and alcohol production**
Reduces viscosity while starch gelatinizes

**Liquefy starch in starch sugar processing (glucose, maltose, dextrin)**
Reduces viscosity during liquefaction

**Add at liquefaction in beer and brewing**
Liquefies starch at high temperature

## DOSAGE

### 0.3–0.6 L per ton

per ton of total raw materials (alcohol industry)

| | |
|---|---|
| Industry | **Alcohol** |
| 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.

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-high-yield-fermentation

Enzyme preparations are proteins that may cause allergic-type reactions; 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