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TECHNICAL DATA SHEET

TDS-ENZ201-EN · REV. 02 · 2026-11-03

Protease for Chill-haze Prevention in Brewing

Liquid proline-specific protease that prevents cold haze in beer and beverages.

SKU **ENZ201** CATEGORY **BEER BREWING ENZYMES** CAS **9040-76-0** EINECS **232-642-4** GRADE **FOOD GRADE**

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

OPTIMUM TEMPERATURE	OPTIMUM PH	SHELF LIFE	APPLICATION RATE
20°C-45°C	**4.5-6.0**	**12 months**	**0.01-0.5kg/t DS**
working range 0°C-60°C	working range pH 3.5~7.0	sealed, see storage below	optimize for each application

SPECIFICATION

IDENTITY	
Enzyme	**Protease (endoprotease), cleaves peptide bonds formed by proline at C-terminals** Typical
Other name	Proline protease Typical
PHYSICAL	
Appearance	Liquid, light brown Typical
Odour	Normal microbial fermentation odour Typical
Bulk density (g/ml)	1.05-1.20 Typical
pH (25°C)	3.5–5.5 Typical
WORKING WINDOW	
Temperature	**Optimum 20°C-45°C; range 0°C-60°C** Typical
pH	**Optimum 4.5-6.0; range 3.5~7.0** Typical
PURITY AND HYGIENE	
Lead (mg/kg)	≤5.0 Typical
Arsenic (mg/kg)	≤3.0 Typical
Total viable count (CFU/mL)	≤50000 Typical
Salmonella (25mL)	Not Detected 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 / bag

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

APPLICATIONS

Prevent cold haze in beer brewing
Cleaves proline peptide bonds in haze-sensitive proteins, so haze does not form.

Substitute PVPP in beer stabilisation
Improves colloidal stability without harming the foaming property of beer.

Clarify juice and beverage products
Solves the cold haze problem and extends shelf life stability.

Improve non-biological stability in brewing and beverages
Acts only on proline peptide bonds, leaving other protein functionalities intact.

DOSAGE

0.01-0.5kg/t DS

per tonne of DS (recommended application rate)

Optimum temperature	**20°C-45°C**
Optimum pH	**4.5-6.0**

Optimize the rate for each application, raw material, product expectation and processing parameters.
Begin the test with a convenient volume.

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

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Online: enzymes.bio/product/chill-haze-prevention-in-brewing-protease-enzyme-cas-232-642-4

Enzyme preparations may induce sensitization and allergic symptoms; avoid direct skin contact and consult a doctor if irritation or allergic response 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