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TECHNICAL DATA SHEET

TDS-ENZ014-EN · REV. 02 · 2026-11-03

Papain 200,000 U/g Food Grade Biological Enzyme

Papain preparation extracted from unripe papaya pulp, with a declared activity of 200,000 U/g.

SKU **ENZ014** CATEGORY **PAPAIN** GRADE **FOOD GRADE** CAS **9001-73-4**

Food grade · Not restricted for transport

DECLARED ACTIVITY
200,000 U/g
as stated on the product page

APPLICATION RATE
0.08mg/100mL
papain added to beer during frozen storage

SPECIFICATION

IDENTITY	
Source	Unripe pulp of papaya Typical
CAS	9001-73-4 Typical
ACTIVITY	
Enzyme activity	**≥ 200,000 U/g** Spec
COMPOSITION	
Main components	Papain, papaya rennet A, papaya rennet B, papaya peptidase B, other proteolytic enzymes Typical
PHYSICAL	
Appearance	**White powder** Spec
Loss on drying	≤ 8.0 % Spec
Odor	No odor Typical
Water solubility	Good; easily soluble in water and glycerol Typical
Aqueous solution appearance	Colorless or light yellow, sometimes milky white Typical
PURITY AND HYGIENE	
Heavy metals	< 30 mg/kg Spec
Arsenic (As)	< 2.0 mg/kg Spec
Lead (Pb)	< 2.0 mg/kg Spec
Total plate count	≤ 10,000 CFU/g Spec

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
Store humidity-protected (RH < 60%) at temperature below 25°C

PACK SIZE
Not stated

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

APPLICATIONS

Tenderize meat
Hydrolyses muscle fibre and collagen to make meat tender and crisp.

Clarify beer
Hydrolyses beer proteins to improve clarity and taste during frozen storage.

Improve baked goods
Reduces dough tenderness through flour protein hydrolysis, lowering the defective rate.

Produce condiment bases
Hydrolyses meat, bean and mushroom proteins for chicken essence and soy sauce.

Process animal feed
Hydrolyses meat protein scraps and reduces the viscosity of the finished product.

DOSAGE

0.08mg/100mL
papain per 100 mL of beer

Substrate	**Beer**
Stage	**Frozen storage process**

Recommended for a better clarification effect.

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

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Online: enzymes.bio/product/papain-200000-u-g-food-grade-biological-enzyme

Enzyme preparations are proteins and may sensitise; avoid skin, eye and inhalation 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