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TECHNICAL DATA SHEET

TDS-ENZ023-EN · REV. 02 · 2026-11-03

Cellulase Enzyme For Bioethanol Production

Liquid cellulase that converts lignocellulosic biomass into fermentable sugars for biofuel manufacturing.

SKU **ENZ023** CATEGORY **CELLULASE** CAS **9012-54-8** FORM **LIQUID** COLOUR **SNUFF COLOUR**

Not restricted for transport

Produced by submerged fermentation

DECLARED ACTIVITY
CMC ≥4500 u/ml
Xylanase ≥7000 u/ml; β-glucosidase ≥3000 u/ml

OPTIMUM TEMPERATURE
45-65°C
working range 30-70°C

OPTIMUM PH
4.5-5.5
working range pH 3.5-7.0

SHELF LIFE
12 months
sealed, see storage below

SPECIFICATION

IDENTITY	
Colour	Snuff colour Typical
Odour	Slight fermentation odour Typical
ACTIVITY	
Enzymatic activity (CMCase)	**≥ 4500 U/mL** Spec
Enzymatic activity (xylanase)	**≥ 7000 U/mL** Spec
Enzymatic activity (β-glucosidase)	**≥ 3000 U/mL** Spec
COMPOSITION	
Enzyme components	Endocellulase, exocellulase, β-glucosidase Typical
WORKING WINDOW	
Working temperature	30-70°C Typical
Optimum temperature	45-65°C Typical
Working pH	3.5-7.0 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
Dry place with low temperature; avoid insolation and damp

PACK SIZE
1 kg / bag

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

APPLICATIONS

Process corn straw, corn cob, corn bran, wheat straw and bagasse
Converts these pretreated materials into fermentable sugars

Hydrolyse lignocellulosic material in ethanol production
Reduces hydrolysis time and increases biomass-to-sugar conversion

Lower enzyme dosing and pretreatment severity
Supports higher total solids loading and lower ethanol production cost

DOSAGE

0.8-2.0%
of cellulose

Substrate **Cellulose**

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

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Online: enzymes.bio/product/cellulase-enzyme-for-bioethanol-production-cas-9012-54-8

Enzyme preparations are proteins that may cause sensitization and allergic-type reactions; avoid direct skin 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