OPTIMASH™ BG
Beta Glucanase/Xylanase for Barley and Wheat Ethanol Manufacturing

DESCRIPTION

OPTIMASH™ BG is an enzyme preparation intended for the fuel alcohol industry. This product is capable of reducing viscosity of barley and wheat mashes. OPTIMASH™ BG enzyme contains a combination of enzymes which effectively modify and digest non-starch carbohydrates, the structural material of plant cells. OPTIMASH™ BG is produced by submerged fermentation of a genetically modified strain of Trichoderma reesei.

OPTIMASH™ BG meets or exceeds the Joint FAO/WHO Expert Committee on Food Additives (JECFA) and the Food Chemicals Codex (FCC) specification for enzyme preparations used in food and is GRAS (Generally Recognized As Safe) in the United States.

TYPICAL CHARACTERISTICS

Activity: 10,300 CMCU U/g (minimum)
Appearance: Light amber liquid
Solubility: Completely miscible in water
Specific gravity: 1.05 - 1.15 g/ml

UNIT DEFINITION

The activity of OPTIMASH™ BG is expressed in Carboxymethyl Cellulase (CMCU) activity units.

APPLICATION

In the fuel ethanol industry, OPTIMASH™ BG can be used when milled grain, like barley and wheat, are used as raw material. Advantages of using OPTIMASH™ BG are improved starch utilization and the hydrolysis of non-starch carbohydrates, which otherwise increase mash viscosity or cause fouling problems in distilling equipment.

DOSAGE GUIDELINES

The optimum dosage levels of OPTIMASH™ BG will vary with different substrates and operating conditions such as pH, temperature, and reaction time. With no previous use information, OPTIMASH™ BG should be initially tested at 0.025 - 0.05 kg/metric ton dry substance (DS), for wheat mashes and 0.20 - 0.30 kg/metric ton dry substance (DS) for barley mashes, after which the dosage can be lowered gradually to determine the lowest level at which the enzyme has the required effect.

EFFECT OF TEMPERATURE

Figure 1: Temperature Activity Profile of OPTIMASH™ BG
Resultant rate of activity on substrate for 10 minutes at pH 4.6
PACKAGING

OPTIMASH™ BG enzyme is available in various standard packaging sizes. Please contact DuPont for detailed information.

STORAGE

This product will meet the declared activity upon arrival at the customer’s plant. It is advisable to store OPTIMASH™ BG under refrigerated conditions. Storage above 25°C (77°F) should be avoided.

SAFETY & ENZYME HANDLING

Inhalation of enzyme dust and mists should be avoided. In case of contact with the skin or eyes, promptly rinse with water for at least 15 minutes.

For detailed handling information, please refer to the appropriate Material Safety Data Sheet, the Enzyme Technical Association (ETA) handbook Working Safely With Enzymes, and the Association of Manufacturers and Formulators of Enzyme Products (AMFEP) handbook Guide to the Safe Handling of Microbial Enzyme Preparations. All are available from DuPont.

TECHNICAL SERVICE

Information covering specific applications of this product is available. DuPont will work with customers to enhance processes and solve problems. Let us know what you need and we will assist you.

CONTACT INFORMATION

NORTH AMERICA
Rochester, New York (USA)
☎️ +1 800 847 5311
📞 +1 585 256 5295

EUROPE, MIDDLE EAST & AFRICA
Leiden, The Netherlands
☎️ +31 71 5686 168
📞 +31 71 5686 169

LATIN AMERICA
Buenos Aires, Argentina
☎️ +54 11 4875 9500
📞 +54 11 4875 9529

SÃO PAULO, BRAZIL
☎️ +55 11 4613 3800
📞 +55 11 4612 1101

ASIA/PACIFIC
Singapore
☎️ +65 6511 5600
📞 +65 6511 5666

Shanghai, P.R. China
☎️ +86 21 2307 9588
📞 +86 21 2307 9599

Mumbai, India
☎️ +91 22 3008 7131
📞 +91 22 3008 7150

Lahore, Pakistan
☎️ +92 300 8476 404
📞 +92 423 5437 866

www.dupont.com

Copyright © 2013 DuPont. All rights reserved. The DuPont Oval Logo, DuPont, the Leaf Globe, OPTIMASH™ are trademarks or registered trademarks of E. I. du Pont de Nemours and Company or its affiliates.

USE AND/OR SALE OF THIS PRODUCT MAY BE COVERED BY ONE OR MORE PATENTS IN THE U.S. AND OTHER COUNTRIES, AS WELL AS PENDING PATENT APPLICATIONS IN THE U.S. AND OTHER COUNTRIES.

This document is subject to change without further notice.

REV0613  3153  OPTIMASHBG  06