



BREWMULTIZYME Protease, Amylase, Betaglucanase

BENEFITS

Ecofriendly & biodegradable
Good Extraction of soluble protein
Increase efficiency of brew house utilization
Increase free amino nitrogen of the wort
Reduce retro gradation problem
Filtration rate of finished beer is improved
Increase yield of Extract.

DESCRIPTION

Brewmultizyme is a mixture of the various enzymes like beta-glucanase, amylase, protease produced by SSF techniques from selected strains of *Bacillus subtilis* and *Aspergillus niger*. Brewmultizyme can be used with all types of malts and adjuncts and is particularly recommended when unmalted barley makes up 30% to 100% of the mash bill.

PRODUCT SPECIFICATION

Parameters	Operational range	Optimal range
Temperature	30°C to 65°C	35°C to 55°C
pH	5.0 to 9.0	6.0 to 8.5
Form & appearance	Free flowing Powder, Light yellow to white color	
Enzyme types	protease, amylase, beta-glucanase	
Microbial source	Bacillus subtilis & Aspergillus niger	

PAKAGING:

Enzymes products are available in 25 Kilogram fiber drum for powder products. Special packaging is also available on request.

SAFETY

The product is produced under hygienic condition and is subject to stringent quality control.

Toxicology

The product produced by GRAS microorganism and is classified as non toxic.

Biodegradability

Product is Biodegradable.

Handling precaution

Enzymes are proteins and inhalation of dust or aerosols may induce sensitization and may cause allergic reactions in sensitized individuals. Some enzymes may irritate the skin, eyes and mucous membranes upon prolonged contact.

Liquid enzyme products may create inhalable aerosols if splashed or vigorously stirred. Spilled product material should therefore be flushed away with water.

STORAGE:

Enzyme products should be stored in a cool dry place. When stored below 35°C products will maintain its declared activity for at least 24 months. The enzyme preparation should not be left in direct sunlight for extended periods. Liquid preparation should not be frozen.

REGULATORY INFORMATION:

EEC Classification

In concentration form, the liquid enzymes products are classified as "sensitizers by inhalation" under the terms of EEC directive 88/379.

TECHNICAL DATASHEET [FOR Brewmultizyme]

There are many factors that influence activity of Brewmultizyme

- [1] Substrate concentration
- [2] Degree of hydrolysis desired
- [3] Temperature & pH of the process
- [4] Time of hydrolysis
- [5] Type of process & equipment
- [6] Quality of raw materials

Below mention general guideline for dosage of Brewmultizyme

Product	Dosage	
Brewmultizyme	500gram per ton of grains making up mash bill. The dosages depend upon quality of raw materials.	
	Product added at the starting of the mashing.	
The optimum dosage should be determined through trials.		

TECHNICAL SERVICE:

AumEnzymes technical service laboratory shall be pleased to provide more information covering specific applications for all products or discuss any practical problem which many occur in the industry.

Technical datasheet given with each product are only given as usage guidelines, but tests should be carried out under local conditions to fix the optimum dosage for the machine type and conditions.

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