White Labs Fermentation Enzymes

Made with technology from DSM

Product Specification Sheet

VISCO-BUSTER

Product Information

Product description	Enzyme preparation for food use containing beta-glucanase derived from a selected strain of *Trichoderma reesei*
Product number	WLN4400
Country of origin	Finland
Application market	Beer: Improves the viscosity and filterability of wort and beer; increases brew house yield
Appearance	liquid (appearance may vary from batch to batch)
Standardised activity	≥ 300000 BGF/g
Status	- The production strain is improved by biotechnological techniques and contains multiple copies of a gene naturally present in the strain - Kosher approved - Pareve approved - Allergen statement available on request

Regulatory information

The product complies with general specifications for food enzyme preparations as published by JECFA, FCC and in French "Arrêté auxiliaires technologiques du 19 octobre 2006" and with FDA current GMP standards (21 CFR 110).

Composition

Stabilizing agent	sodium benzoate (< 0.5%)

Chemical properties

Heavy metals	< 30 ppm (as Pb)
Lead	< 5 ppm
Arsenic	< 3 ppm
Cadmium	< 0.5 ppm
Mercury	< 0.5 ppm

Microbiological properties

Total plate count	< 5 * 104 CFU per g
Coliforms	< 30 CFU per g
Escherichia coli	absent in 25 g
Salmonella	absent in 25 g
Staphylococcus aureus	absent in 1 g
Sulphate reducers	< 30 CFU per g
Anti bacterial activity	absent by test
Mycotoxins	absent by test

Stability data

Recommended storage temperature 4 - 8°C
When stored in recommended condition, the shelflife is 6 months after production. Hereafter a re-assay is advisable.

Safety & handling

Please refer to the Material Safety Data Sheet available on request

Contact

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APPLICATION DATA SHEET

VISCO-BUSTER

Glucanases and hemicellulases improving filterability of wort and beer, and increasing the brewhouse yield

PRODUCT DESCRIPTION

VISCO-BUSTER is a liquid product obtained from *Trichoderma reesei*. This is an enzyme complex containing predominantly β1,3-1,4-glucanase activity, but also endo-xylanase and other hemicellulases.

FUNCTION

The use of raw grain adjuncts and less-modified malts often leads to wort filtration problems after mashing and consequently to capacity and extract losses. It is well known that β-glucans found in the endosperm wall of grains can cause filtration problems after mashing and haze problem in finished beer. Similarly, hemicelluloses (mainly xylans and arabinoxylans) can retain wort and cause extract loss due to its very high liquid retention ability in the grain bed. Hemicellulose can also lead to haze problems in the finished beer, especially during high gravity brewing.

VISCO-BUSTER enzymes decrease quickly the mash's viscosity and improve filterability of the wort. This latter is less retained in spent grains, yield and extract are improved. More efficient filtration results in an increased efficiency of brewhouse throughput, particularly when poorly modified malts or adjuncts are used, but standard malts can also benefit. Filtration of the finished beer is its colloidal stability are consequently improved.

APPLICATION

VISCO-BUSTER can be used will all types of malts and adjuncts and is particularly recommended when poorly modified malt makes up a large proportion of the mash bill.

VISCO-BUSTER dosage usually required is 100 grams per ton of malt or raw material making up the mash bill.

VISCO-BUSTER has high activity between 40°C and 70°C. It should be added at the beginning of mashing-in so that enzymes can work along the mashing process.