

Enzymation

Pectinex[®] MASH

1 B 1.6.41 · ISc
10/2006

Highly Active Pectinase, Particularly Suitable for Mash Enzymation of Pomaceous Fruit

Description

Pectinex[®] MASH is a pectolytic enzyme preparation, produced through submerge fermentation of *Aspergillus species*. The composition of Pectinex[®] MASH was specially developed for optimized processing of pomaceous fruit mashes.

Application and Effect

Pectinex[®] MASH was developed specially for enzyme treatment of fruit mashes and maceration of plant tissue. Soluble and insoluble pectin, as well as haze-causing polysaccharides, are removed efficiently. The juices resulting from mash treatment with Pectinex[®] MASH meet all relevant quality standards for fruit juices.

Pectinex[®] MASH applied to fruit mashes and/or marc results in a significant increase in capacity or solid/liquid separation (e.g. decanter, press) and higher juice yield.

Pectinex[®] MASH must be mixed well with the mash to be broken down. The diluted enzyme solution (ideally 10 % in cold tap water) should therefore be added directly to the mill or the mash tank, preferably by means of a metering pump. Uniform distribution in the fermentation vessel ensures maximum mash breakdown. Stirring and pumping should be avoided.

Effect on the mash:

- ▶ Larger proportion of free running juice
- ▶ Increased press capacity
- ▶ Lower marc content
- ▶ Higher yield and capacity for horizontal presses, belt presses or decanters
- ▶ Easy press and system cleaning
- ▶ Wide range of secondary enzyme activities

Dosage

| Application | Dosage ml/ton | Holding time/temperature |
|--|---------------|-----------------------------|
| Mash from fresh fruit | 40 – 80 | 15 – 25 °C, min. 30 minutes |
| Mash from stored fruit | 50 – 100 | 15 – 25 °C, min. 30 minutes |
| For achieving a negative alcohol test after pressing/decanting | 150 – 200 | 15 – 25 °C, min. 30 minutes |

Special Notes

Dosage: Avoid stirring.

The dosage strongly depends on the quality, type, degree of ripeness, and the operating conditions.

Holding time: Enzymes require a certain amount of reaction time.

Please ensure a holding time of 30 – 60 minutes.

Temperature: The enzyme remains active at higher temperatures (up to 55 °C). However, temperatures above 30 °C are critical for the quality of the flavor. Temperatures between 30 and 45 °C can lead to microbial problems. Avoid mash temperatures below 10 °C.

Pectinex[®] MASH is inactivated either in the flavoring system or during pasteurization.

Safety and Purity

Pectinex[®] MASH complies with the FAO/WHO (JECFA and FCC) specifications for enzymes in the food industry. Application of the product poses no hazard to health if used as directed and processed properly.

Pectinex[®] MASH has a standard activity of 10,000 PECTU/ml.

Descriptions of the analysis techniques and EC Material Safety Data Sheet are available on request.

Pectinex[®] MASH is filled aseptically following sterile filtration and is therefore practically germ-free. Pectinex[®] MASH is a brownish, liquid enzyme preparation. It is free from preservatives and has the typical odor of fermented products.

Storage

The recommended storage conditions are 0 – 10 °C in intact packaging and protected from the sun. The product is formulated for optimum stability. Nevertheless, the activity of enzymes gradually diminishes over time. Excessively long periods of storage and/or adverse conditions including high temperatures could require higher dosage.

Delivery Information

25-liter PE canister – article number 95.233.250

HS customs tariff: 3507 90 90

Certified Quality

Pectinex® MASH is produced by Novozymes Switzerland AG, Neumatt, CH-4243 Dittingen and is constantly monitored during the production process for consistently high product quality. These inspections cover technical functional criteria as well as conformance with relevant laws governing the production and sale of foodstuffs. Strict controls are additionally carried out immediately prior to and during final packaging.



Reg. No. 000480 QM

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E. Begerow GmbH & Co. · An den Nahewiesen 24 · 55450 Langenlonsheim · Germany

Fon: +49 6704 204-0 · Fax: +49 6704 204-121 · www.begerow.com · info@begerow.com

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