

Enzyme Treatment

Panzym® Flux

Special Pectinase for Improving Filterability during Cross Flow Filtration

Panzym Flux enzyme is a special pectinase for improving filter capacity during ultrafiltration of fruit juice. Because of its broad spectrum of specific, highly active side activities (cellulase, hemicellulase and in particular rhamnogalacturonase and galactomannanase) the amount of polysaccharides blocking the membrane is considerably reduced, thus increasing the yield of a cross flow plant. The extensive colloid break-down also allows fruit juice manufacturers to fulfill critical specifications of the alcohol test, especially when it comes to berry juices.

Panzym Flux enzyme is obtained from a selected strain of *Aspergillus niger* and is available as a clear, brown liquid with a slight smell, typical of fermented products.

Application and Mode of Action

Panzym Flux enzyme is used in fruit juice production together with pectolytic and amylolytic enzymes. As a rule the enzyme is added to the first juice portions in the enzymation tank. The combination of pectolytic and amylolytic activities with colloid-degrading activities ensures quick, reliable degradation of cloud-stable colloids and colloids which can inhibit cross flow filtration.

Dosage

The effectiveness of the enzyme is temperature-dependent. The activity optimum occurs at 113 – 131 °F (45 – 55 °C). As the temperature falls, the rate of reaction falls. Although the activity remains unchanged, in principle, the effect is greatly delayed. At temperatures lower than 59 °F (15 °C), therefore, an increased dosage should invariably be used. Panzym Flux enzyme is inactivated at temperatures exceeding 140 °F (60 °C) and by contact with bentonite.

Intended application	Dosage fl oz/1,000 gal (ml/hl)	Temperature in °F (°C)/ time
Berry juice:	3.84 – 5.12 (3 – 4)	122 °F (50 °C)/ 1 – 2 h
Apple/pear juice	2.56 – 3.84 (2 – 3)	122 °F (50 °C) 1 – 2 h
Fruit wine	1.28 – 2.56 (1 – 2)	during fermentation

Safety and Purity

Panzym Flux enzyme complies with the FAO/WHO (JECFA and FCC) specifications for enzymes in the food industry.

Panzym Flux enzyme is filled aseptically following sterile filtration and is therefore virtually germ-free. Panzym Flux enzyme is a brownish, liquid enzyme preparation that has the typical odor of fermented products.

Panzym Flux enzyme is characterized as follows:

- Production organism: *Aspergillus aculeatus*
- Specified activity: 3300 PGNU/g (Polygalacturonase)

When used as directed and handled correctly, there are no known unfavorable effects associated with this product.

Further information on safety can be found in the Material Safety Data Sheet, which is available for download from our website.

Storage

The product should be stored with the packaging intact away from sunlight at a temperature of 32 to 50 °F (0 to 10 °C).

Unfavorable storage conditions (exposure to direct sunlight, higher storage temperatures) may require a higher dosage.

Once opened, the product should be used up as soon as possible.

Delivery Information

Panzym Flux enzyme has the article number 95.260 and is supplied in the following packaging unit:

44 lb (20 kg) PE canister

HS customs tariff no: 3507 90 90

Certified Quality

Panzym Flux enzyme is inspected regularly during the production process to ensure consistently high product quality.

Strict controls also take place immediately before and during final packaging.

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