

## Enzyme Treatment

### SIHAZYM™ Extro



## Granulated Wine Enzyme Compound for Extraction of Grape Mash

SIHAZYM Extro enzyme from Eaton's Begerow Product Line is a pectolytic enzyme compound for extracting grape ingredients from red and in particular white wine mash. In addition to pectin breakdown characteristics, SIHAZYM Extro enzyme contains further defined secondary activities such as arabinosidase and hemicellulases. It is specially adapted to the oenological process of mash enzymation. Selective enzymatic release of polysaccharides and rapid breakdown of the pectins are the main functions of SIHAZYM Extro. This product protects the extracted grape flavors in the mash, since it contains no anthocyanase activity.

The specific advantages of SIHAZYM Extro enzyme:

- Rapid release of grape ingredients
- Protection of released grape flavors
- Higher quantity of free run must
- Reduction of mash viscosity
- Increased press capacities

### Application

In white wine mash, SIHAZYM Extro enzyme particularly promotes the release of polysaccharides and reduces the viscosity of the mash. During cold maceration of white wine mash, SIHAZYM Extro enzyme is active down to 46.4 °F (8 °C).

Add SIHAZYM Extro enzyme to red wine mash during the mash maceration time or to the recooled mash (approx. 104 °F (40 °C)). In addition to anthocyanins, enzymatic decomposition also releases flavors and desirable grape tannins.

Based on the dosage recommendation add the product directly into the mash container, the grape mill, the press, or the grape mash container as a 10% solution in water. It is important to ensure optimum distribution of the enzyme solution in the must either through continuous addition to the mash flow via an injector pump or through partial addition (with running agitator) during filling of the mash containers.

### Dosage

| Application                                | Dosage<br>lb/1,000 gal<br>(g/100 kg)<br>mash | Duration    |
|--|--|-------------|
| White wine mash:                           |  |             |
| approx. 59 °F<br>(15 °C)                   | 0.17 – 0.25<br>(2 – 3)                       | 4 – 6 h     |
| approx. 46.4 – 50 °F<br>(8 – 10 °C)        | 0.33 – 0.5<br>(4 – 6)                        | 4 – 6 h     |
| Red wine mash:                             |  |             |
| Traditional mash<br>fermentation           | 0.17 – 0.25<br>(2 – 3)                       | 5 – 20 days |
| Pumping-over                               | 0.17 – 0.25<br>(2 – 3)                       | 2 – 8 days  |
| Recooled mash<br>(up to 122 °F<br>(50 °C)) | 0.17 – 0.25<br>(2 – 3)                       | 2 – 4 h     |

### Activity

SIHAZYM Extro enzyme has an activity of 13,200 PGNU/dr (7,600 PGNU/g, polygalacturonase). The product is cleaned of cinnamyl esterase activity.

### Special Notes

Contact with bentonite causes irreversible damage to enzymes through adsorption.

The enzymatisation reaction must be completed prior to using bentonite, or the bentonite must be removed before the enzyme is added.

Any bentonite treatment that may be required should therefore be carried out before the enzyme treatment, because otherwise the enzyme would be adsorbed and deactivated by the bentonite. The application of up to 8.4 lb/1,000 gal (1,000 mg/l SO<sub>2</sub>) has no influence on enzyme activity.

Each packaging unit includes a dosing spoon:

0.22 lb (100 g) can – 0.01 lb (5 g) dosing spoon

1.1 lb (500 g) can – 0.02 lb (10 g) dosing spoon

11.02 lb (5 kg) canister – 0.04 lb (20 g) dosing spoon

## Safety and Purity

The product is a white, virtually dust-free, and soluble micro-granulate without preservatives. It meets the requirements of the FAO/WHO JEFCA and FCC recommendations for food enzymes.

Further safety information can be found in the relevant Material Safety Data Sheet, which can be downloaded from our website.

## Storage

SIHAZYM Extro enzyme is a micro-granulate that can be stored for up to three years at 39.2 – 42.8 °F (4 – 6 °C, ~ refrigerator temperature) without losing its designated activity.

The product should be stored dry and well-sealed once opened.

## Delivery Information

SIHAZYM Extro enzyme is sold under article no. 95.232 and is available in the following package sizes:

|                    |            |
|--------------------|------------|
| 0.22 lb (100 g)    | can        |
| 1.1 lb (500 g)     | can        |
| 11.02 lb (5 kg)    | canister   |
| HS Customs Tariff: | 3507 90 90 |

## Certified Quality

During the production process, SIHAZYM Extro enzyme is regularly monitored to ensure consistently high quality.

These inspections include technical functional criteria as well as safeness in accordance with relevant laws governing production of foods. Strict controls are additionally carried out immediately prior to and during final packaging.

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Not all products in Eaton's Begerow Product Line are available in all regions. Please contact your local Eaton office to determine availability.

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