Technical Data Sheet

# Enzyme Treatment SIHAZYM™ A Granulated

# Enzyme Compound for Flavor Release in Wine Production

SIHAZYM A Granulated enzyme is a granulated enzyme compound produced from a selected *aspergillus niger* strain through submerse fermentation. SIHAZYM A Granulated enzyme is highly concentrated, cleaned, mixed compound containing pectinases, and beta glucosidases that has been specially selected for promoting the typical bouquet and flavor of young white and rosé wines by releasing grape aroma substances (terpenes). The pectinase activities of SIHAZYM A Granulated enzyme improve the clarification and filterability of young wines.

## Application

SIHAZYM A Granulated enzyme was developed for flavor release in young wines containing mainly terpene glycosides as flavor precursors such as Muscat varieties, Gewuerztraminer, and other related varieties. The active enzyme components of SIHAZYM A Granulated enzyme are easily soluble in must or water in concentrations commonly encountered under normal working conditions. Add a 10% solution of the product to the abating fermentation stage or at the end of the alcoholic fermentation. Before treating the young wines with sulfur, it is advisable to terminate the enzyme activity by adding 0.83 lb/1,000 gal (10 g/hl) of SIHA<sup>®</sup> Active Bentonite G fining agent.

The presence of glucose reduces the enzyme activity. At a rest sugar content of 0.25 - 0.83 lb/gal (30 - 100 g/l) the activity period should therefore be doubled.

# Dosage

| Application                                 | Dosage<br>Ib/1,000 gal<br>(g/hl) | Duration        |
|---|----------------------------------|-----------------|
| Flavor release in young white or rosé wines | 0.17 – 0.42<br>(2 – 5)           | 10 – 15<br>days |
| Sweet wines                                 | 0.67 – 0.83<br>(8 – 10)          | 15 – 20<br>days |

#### Activity

SIHAZYM A Granulated enzyme has a polygalacturonase activity of 6,200 PGNU/0.002 lb (3,500 PGNU/g) and a glucosidase activity of 350 ß-glucosidase/0.02 lb (200 BGX/g).



### **Special Notes**

Enzymes are irreversibly damaged through adsorption on contact with bentonite. The enzyming reaction must be completed before the application of 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 1.25 lb/1,000 gal (150 mg/l)  $SO_2$  has no influence on enzyme activity.

Application of activated carbon significantly reduces the enzyme activity. Simultaneous application of enzymes and activated carbon should therefore be avoided.

Because of the risk of decolorization, SIHAZYM A Granulated enzyme is not recommended for red wines.

Each 0.22 lb (100 g) can includes a 0.011 lb (5 g) dosing spoon.

### Safety and Purity

The product is a white, soluble micro-granulate without preservatives and is practically dust-free. It meets the requirements of the FAO/WHO JEFCA and FCC recommendations for food enzymes, supplemented through an upper limit value of  $10^4$ /g for total viable count.

#### Storage

SIHAZYM A Granulated enzyme is a micro-granulate and therefore particularly stable. When stored at  $39.2 - 42.8 \degree F (4 - 6 \degree C)$ , ~ refrigerator temperature), the product retains its stated activity for three years.

#### **Delivery Information**

SIHAZYM A Granulated enzyme is sold under article no. 95.132.001 and is available in the following package size:

0.22 lb (100 g) can

## **Certified Quality**

SIHAZYM A Granulated enzymes are inspected regularly during the production process to ensure consistently high product quality. These inspections include wide-ranging technical functional criteria as well as safeness in accordance with relevant laws governing production of foods. Strict controls are also carried out immediately before and during final packaging.

SIHAZYM A Granulated enzymes meet the purity criteria of the International Codex for Wine Processing Agents and complies with the German Wine Law.

#### North America

44 Apple Street Tinton Falls, NJ 07724 Toll Free: 800 656-3344 (North America only) Tel: +1 732 212-4700

#### Europe/Africa/Middle East Auf der Heide 2

53947 Nettersheim, Germany Tel: +49 2486 809-0

Friedensstraße 41 68804 Altlußheim, Germany Tel: +49 6205 2094-0

An den Nahewiesen 24 55450 Langenlonsheim, Germany Tel: +49 6704 204-0

# China

No. 3, Lane 280, Linhong Road Changning District, 200335 Shanghai, P.R. China Tel: +86 21 5200-0099

# Singapore

4 Loyang Lane #04-01/02 Singapore 508914 Tel: +65 6825-1668

### Brazil

Rua Clark, 2061 - Macuco 13279-400 - Valinhos, Brazil Tel: +55 11 3616-8400

## For more information, please email us at *filtration*@eaton.com or visit www.eaton.com/filtration

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