Biological Acidity Reduction VINIFLORA[®] OENOS

Oenococcus Oeni DSM 7008

VINIFLORA OENOS malolactic bacteria are a new type of highly active oenococcus oeni compound for use in the preparation of wines to biologically reduce acidity. A unique technological standard makes it possible to quickly and reliably reduce acidity biologically through direct inoculation and thus provide the ideal conditions for complete and dependable control. Application of this product produces a rounder tasting, more harmonious wine of maximum stability and avoids the uncalculated risk of spontaneous acidity reduction.

The specific advantages of VINIFLORA OENOS malolactic bacteria:

- Maximum vitality and activity development in wine and can therefore be used directly as a dry product (without reactivation)
- All-purpose application to red and white varieties of grape
- Reliably prevents spontaneous, improper acidity reduction
- Produces more harmonious wines with maximum biological stability

Application

VINIFLORA OENOS malolactic bacteria are packaged in bags sufficient for 660 gal (25 hl) and 6,600 gal (250 hl) of wine respectively. Do not dose less than the recommended quantity. A lower dosage promotes spontaneous bacterial growth and jeopardizes degradation of malic acid.

Sprinkle the dry VINIFLORA OENOS malolactic bacteria product <u>directly</u> into the wine immediately after completion of alcoholic fermentation. Stir in without oxygen pickup or circulate by means of anaerobic pumping.

The drum should be kept sealed as far as possible during BAR.

Product Characteristics

VINIFLORA OENOS malolactic bacteria are a highpurity concentrate made of freeze-dried o*enococcus oeni* cells (DSM 7008 strain). VINIFLORA OENOS malolactic bacteria have been selected from over 850 lactic acid bacteria strains in accordance with all relevant oenological criteria (organoleptic purity of wine, high tolerance towards alcohol and SO₂ and low pH values, no development of undesired metabolism products). Of particular significance is its ability in its dry state to quickly develop metabolism soon after inoculation. With these excellent properties and its unsurpassed economic viability, VINIFLORA OENOS malolactic bacteria meet all aspects of technical wine cellar requirements.

Important Notes

Open VINIFLORA OENOS malolactic bacteria packaging immediately before use. Do not store any leftover product in the open package since air and moisture will render the product inactive within only a short period of time. For this reason, the contents of the package should never be broken down into smaller container units since exposure to the air would damage the bacteria cells unnecessarily.

The ideal working temperature is 62.6 - 77 °F (17 - 25 °C). Young wines should not be sulfurized (max. 0.46 gr (10 mg/l) of free SO₂ per 100 fl oz, maximum 1.37 gr per 100 fl oz (30 mg/l) of total SO₂). Therefore, check the wine for SO₂ before treating with VINIFLORA OENOS malolactic bacteria. The alcohol content may not exceed 14% by volume; the pH value must not be less than 3.1.

It is particularly important that the factors indicated above work in synergy. If the wine nearly reaches the limits of two or more factors, biological acid reduction is delayed or even rendered impossible. On the other hand, the culture can tolerate extreme values of an inhibitor if the wine is otherwise suitable for biological acid reduction.

Biological acidity reduction normally begins 2 to 3 days after inoculating with VINIFLORA OENOS malolactic bacteria and is complete after 1 to 4 weeks depending upon peripheral conditions.

Since VINIFLORA OENOS malolactic bacteria use diacetyl to break down citrate to imperceptible end products, the product can also be used to specifically contribute to harmonization. This degradation is also carried out by living yeast. If a diacetyl note is not desired, add VINIFLORA OENOS malolactic bacteria before the initial tapping and do not sulfurize the young wine before the required diacetyl level is reached.



Safety

There are no known detrimental effects if VINIFLORA OENOS malolactic bacteria used as directed and processed properly. Since VINIFLORA OENOS malolactic bacteria mix in easily, using this product poses no hazard to health.

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

Storage

VINIFLORA OENOS malolactic bacteria are packaged in gas and watertight laminated aluminum foil. Deep freeze at -0.4 °F (-18 °C) when storing for extended periods. Under these conditions, Eaton guarantees that the product will remain fully active for at least two years. The activity will remain for a minimum of six months when stored at 68 °F (20 °C). Store VINIFLORA OENOS malolactic bacteria under the conditions indicated above until immediately before use. It is not necessary to adapt the temperature of the wine. Temperatures in excess of 86 °F (30 °C) will damage the bacteria and should be avoided in all instances.

Delivery Information

VINIFLORA OENOS malolactic bacteria are available in the following package sizes:

For

264 gal (10 hl) of wine:	4 laminated aluminum bags in carton article no. 93.410.901
660 gal (25 hl) of wine:	laminated aluminum pack article no. 93.410.905
6,600 gal (250 hl) laminated aluminum pack of wine: article no. 93.410.910	

HS Customs Tariff: 3002 90 50

Certified Quality

VINIFLORA OENOS malolactic bacteria comply with all applicable legal directives governing the production of wine and 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 food production laws. Strict controls are additionally carried out immediately prior to and during final packaging.

VINIFLORA[®] is a registered trademark of Chr. Hansen A/S.

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

Av. Julia Gaioli, 474 – Bonsucesso 07251-500 – Guarulhos, Brazil Tel: +55 11 2465-8822

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

EN 1 B 3.6.4.1

09-2015

© 2015 Eaton. All rights reserved. All trademarks and registered trademarks are the property of their respective owners. All information and recommendations appearing in this brochure concerning the use of products described herein are based on tests believed to be reliable. However, it is the user's responsibility to determine the suitability for his own use of such products. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Eaton as to the effects of such use or implied, is made by Eaton as to the effects of such use or information herein to be construed as absolutely complete, ince additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

