

# The Nutrient to Use During Malolactic Bacteria Rehydration

## **BACKGROUND**

Growth and activity of malolactic bacteria is dependent on many factors, including the following:

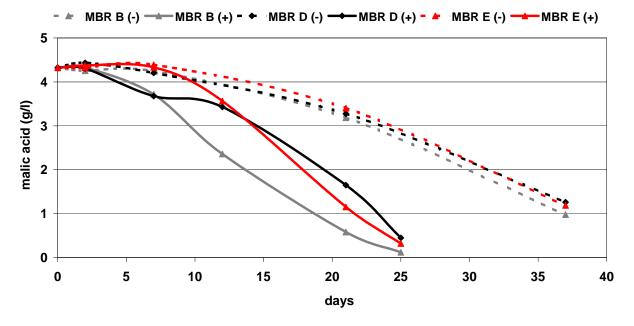
- wine temperature, SO<sub>2</sub> levels, pH, and alcohol levels
- presence of inhibitors such as polyphenols and medium chain fatty acids
- nutrient availability

Since *Oenococcus oeni* strains are affected differently by many of the above factors, ACTI-ML® was formulated by Lallemand's Dr. Sibylle Krieger to strengthen the development of specific strains such as ENOFERM BETA® under difficult conditions.

#### **OENOLOGICAL PROPERTIES**

- When used as directed, ACTI-ML<sup>®</sup> will not contribute any aroma or flavor to the wine.
- Please note that cellulose was chosen as an ingredient for this formulation since it is slow to settle and will aid in keeping bacteria suspended for optimizing activity.

Malic acid drop in a 2003 Chardonnay wine (alcohol 14.1%vol, T-SO2 14 ppm, pH 3.38, Temp. 18oC) with MBR ML starter cultures with (+) and without (-) addition of *ACTI-ML* nutrient





## **USAGE**

# Lallemand recommends using ACTI-ML during rehydration!

Dissolve 20 g of ACTI-ML into 100 mL of 25°C (77°F) clean water and then add 1 g of bacteria. Wait 15 minutes and add the suspension to 100 liters wine.

Addition rates for some popular volumes:

Volume of wine	Volume of rehydration water	Grams of ACTI-ML	Grams of bacteria
100 liters (26 gal)	100 mL	20 g	1 g
250 liters (60 gal)	250 mL	50 g	2.5 g
2500 liters (660 gal)	2500 mL	500 g	25 g
25000 liters (6600 gal)	25 liters	5 kilos	250 g

- If the bacteria fermentation becomes sluggish or stuck, an additional dose of ACTI-ML at the rate of 20 g/hL of wine may effectively stimulate the continuation of malolactic fermentation.
- ACTI-ML may be used for supplementing media used to rehydrate and adapt ML starter cultures or in wine.

#### COMPOSITION

- ACTI-ML® is a 100% biological blend of specific inactivated yeasts and cellulose. These inactivated yeasts provide important malolactic bacteria growth factors -- especially amino acids, peptides, vitamins and minor growth factors.
- Inactivated yeast, along with cellulose, can help keep malolactic bacteria in suspension and may help avert the influence of inhibitors.

#### **PACKAGING AND STORAGE**

- Available in 500 gram foil sacks suitable for treatment of 660 gallons.
- Store below 25°C in sealed container in a dry, odor free environment.
- Shelf life is up to 3 years when stored properly.

The information contained herein is true and accurate to the best of our knowledge, however, this data sheet is not to be considered as a guarantee expressed or implied, or as a condition of sale of this product.

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