SCOTT LABORATORIES
2220 Pine View Way • P.O. Box 4559 • Petaluma, CA • 94955-4559

PROMALIC

Encapsulated Yeast for Naturally Lowering Juice Acidity

CHARACTERISTICS

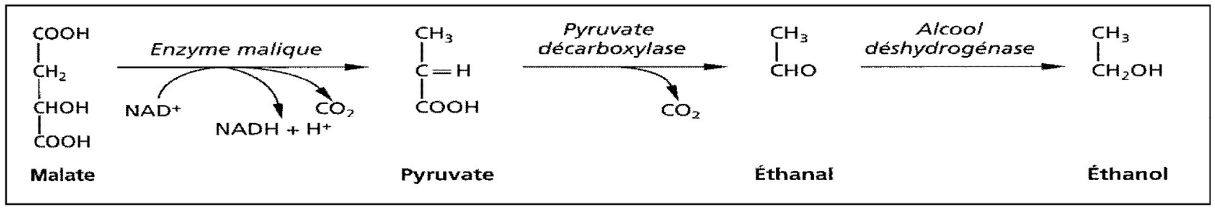
Schizosaccharomyces pombe is a yeast that metabolizes malic acid into alcohol. This yeast is a good alternative to malolactic fermentation or chemical deacidification. It is usually considered a contaminant because if left too long in the wine after malo-ethanol fermentation, it may produce off-characters. New encapsulated technology allows monitoring and swift removal of all *Schizosaccharomyces pombe* cells making the development of off-characters not a problem.

Yeast cells are double encapsulated within alginate beads (natural polysaccharide extracted from seaweed). ProMalic is added to the juice at the beginning of the alcoholic fermentation and removed once the desired malic level is achieved. The safe use of *Schizosaccharomyces pombe* opens the door for winemakers who want an alternative to acid reduction without the production of lactic acid or chemical deacidification.

PROMALIC ADVANTAGE

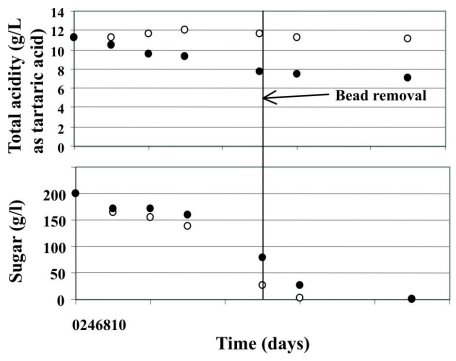
- The double layer of calcium alginate avoids cell leakage.
- Precise control of the malic acid drop without the risk of off taints by easy removal of the encapsulated yeast once the desired malic acid level is achieved.
- Greater decrease in acidity than malolactic fermentation as ProMalic produces no lactic acid.
- Less invasive method of deacidification than double salt, results in higher final wine quality.
- Reduced need for blending to lower acidity level.

Malo-Ethanol Fermentation



2.33 g/L malic acid ⟶ 0.1% ethanol

PROMALIC TRIAL



T.A. & R.S. during vinification of Azal white wine using ProMalic and *S. cerevisiae* (black circles) and a control with only *S. cerevisiae* (open circles). Initial RS 200g/L, 3.12 pH, fermentation at 16°C and 50ppm SO_2 added to the must

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DOSAGE

100 g/hL (8 lb/1000 gal)

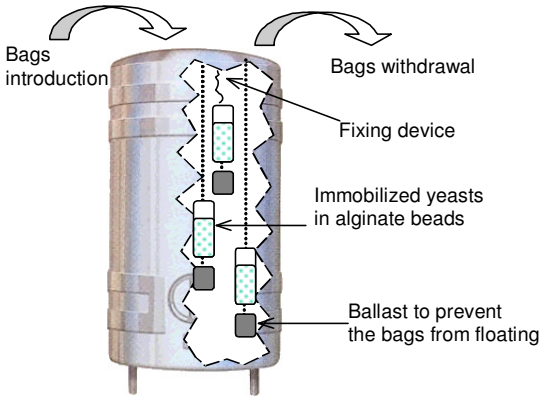
REHYDRATION

- Remove the encapsulated yeast beads from the recommended 4±2ºC (39°F) storage temperature and to allow it adjust to room temperature. This is to avoid thermal shock to the encapsulated yeasts.
- Place the beads into the nylon bags before rehydrating. Distribute the beads evenly throughout the nylon bags to ensure good contact with the juice or must.
- In a clean container, add 40 g/L sugar into a volume of clean, 30°C (86°F) water, 5 times the weight of the beads.
- Once the sugar dissolves, add the bag(s) containing the beads to the rehydration solution.
  Note: The sugar solution does not get added to the must it is only necessary for helping the encapsulated yeast awaken.
- Wait 4 - 5 hours before inoculation.
- The temperature difference between the encapsulated yeast beads and the wine should be less than 10ºC (18°F).

DIRECTIONS FOR USE

After rehydration, introduce the nylon bags containing the beads into the tank/barrel of juice/must. If several bags are added to the same tank, they must be placed at different heights for better distribution. A weight (ballast) is to be hung beneath the bags to prevent them from floating. Bags should be gently shaken 2-3 times a day to release accumulated CO_2. Remove each bag when the desired malic level is reached.

USAGE DIAGRAM



PACKAGING AND STORAGE

ProMalic is available in 1 kg packages. **The product must be stored at 4±2ºC (39°F).** Once opened, it must be used as early as possible. Refrigeration is recommended to retain optimum activity. Unopened refrigerated ProMalic retains activity for 6 months. The nylon mesh bags (tank and barrels) for product application are supplied with the ProMalic.

Revised 6/16/10

Proenol
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