

MLF BACTERIA FOR LOW PH AND HIGH ALCOHOL IN 5,000 hL WINE THE NEW STANDARD FOR MLF IN RED AND WHITE WINE

► The solution for low pH or high alcohol wines

MaxBacti™ HF2 has an outstanding performance to conduct fast malolactic fermentation in wine with high alcohol content or low pH, and it works equally well in both red and white wines. MaxBacti™ HF2 is a strain of *Oenococcus oeni* and was isolated from a Pinot Noir wine.

► New +A³ process

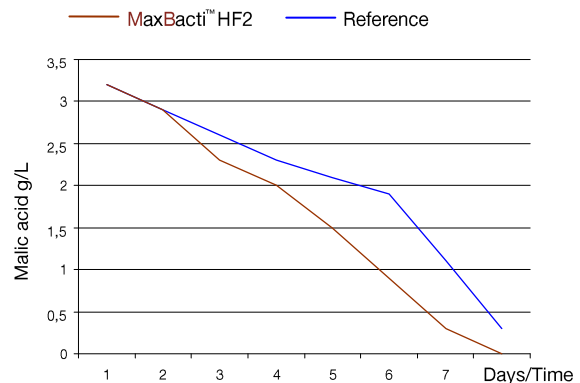
The new +A³ process accommodates an increased number of active cells in combination with a so far unreached fast activation and perfected adaptation of the bacteria for the inoculation in wine or must. This big pack can be used like the smaller packs. Flexible dosage because it is delivered in 5 packs à 1,000 hL.

► The Background of HF2

MaxBacti™ HF2 was isolated from a Pinot Noir with 15.4% Vol. of alcohol. It is appropriate for red and white wines and shows excellent sensory properties and are losing their harsh and vegetal character. In the example shown here two identical wines were divided into separate tanks. One wine was inoculated with MaxBacti™ HF2 (red curve) by using the new activation media where the other wine was inoculated with the standard activated reference culture (blue curve). The wine with MaxBacti™ HF2 shows obviously a quicker malic acid reduction, as the activated reference strain.

- very high tolerant to high alcohol conditions in wine, up to 16% Vol. Alc.
- Very tolerant to low conditions, down to pH 3.0, temperature tolerant down to 13 °C
- Outstanding fruity flavour profile, accentuation of the own flavour

- For fruity red and white wines. No more biogenic amines.
- Increase of the survival rate of the bacteria at inoculation.
- Ideal adaptation to difficult conditions in wine already in 6-8 hours!



Important information

- To dissolve product exactly **40L** of water is needed for a **1,000 hL**-pouch and exactly **200L** for a **5,000 hL**-unit.
- **First** put in the +A³-media (1), **then** the bacteria (2). The water has to be non-chlorinated and non-distilled.

► Additional information

After activation of the bacteria the suspension can be stored for **max. 5 days at 4-6 °C**. For another inoculation with the stored suspension adjust the temperature to the wine's temperature. Stir well again before inoculation. The addition of SO₂ can be done right after the completion of the MLF in order to avoid the growth of other undesired micro-organisms. The addition of Thiamine (Vit.B1) or FermControl™ to the primary fermentation is recommended to reduce the SO₂ formation of yeast.

► Direct inoculation:

A direct inoculation with HF2 bacteria without prior adjustment of the pH is generally possible. However, we recommend the adjustment of the pH by activation with water as previously described.

► Package content

Available for 5,000 hL (or MaloBacti™ AF3 for 25/250 hL) wine or juice, packed in 5 units à 1,000 hL. Freeze-dried MLF starter cultures; *Oenococcus oeni* with a minimum cell count of > 2 x 10¹¹ CFU/g. Strain: 21224.

► Shelf life / storage

2 years at min. -18 °C
4 weeks at +5 °C
5 days at 4-6 °C, if product is already activated
Store frozen, always use the whole package at once

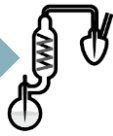
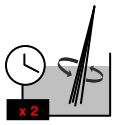
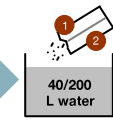
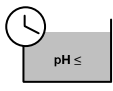
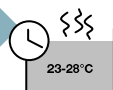
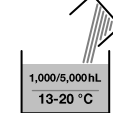




MaxBacti™ HF2

2B FermControl GmbH · FERMENTATION TECHNOLOGY & OENOLOGY

PRACTICAL APPLICATION ADVICE

<p>1</p>  <p>Oenological properties</p> <ul style="list-style-type: none"> ▶ SO₂ tolerance at pH 3.3 < 40ppm ▶ pH range from 3.0 to 4.2 ▶ Ethanol tolerant up to 16.0% Vol. Alc. ▶ Temperature range: 13-26 °C ▶ For excellent sensory properties and accentuation of own flavour 	<p>4</p>  <p>During activation stir suspension twice.</p>
<p>2</p>  <p>water ▶ non-chlorinated, non-distilled</p> <p>40L ▶ 1,000 hL-pouch</p> <p>200L ▶ 5,000 hL-pouch</p> <ul style="list-style-type: none"> ▶ keep water at 23-28 °C ▶ 1. dissolve the +A³ media (chamber 1) in water ▶ 2. dissolve the bacteria (chamber 2) in solution, stir for approx. 5-8 min. 	<p>5</p>  <p>After maximum 8 hours of activation the pH will drop to < 3.8. The bacteria are now completely activated. Check with a pH-meter.</p>
<p>3</p>  <p>The activation of the suspension will take 6-8 hours at 23-28 °C.</p>	<p>6</p>  <p>Stir suspension again and inoculate in 1,000/5,000 hL of wine. Stir well again. Maintain temperature of wine at approx. 13-20 °C during MLF.</p>

