

LACTOENOS® B16 STANDARD

Oenococcus oeni strain with particular resistance to acidity.

*Suitable for the preparation of products intended for direct human consumption, in the scope of regulated use in oenology.
Complies with Commission Regulation (EC) No. 606/2009*

SPECIFICATIONS AND OENOLOGICAL APPLICATIONS

Strain selected in Champagne. Its reactivation protocol makes it suitable for carrying out malolactic fermentation of wines at low pH, such as base wines for sparkling wine.

LACTOENOS® B16 STANDARD in association with LACTOENOS® B16 REACTIVATOR can be used in must or wine by following a specific reactivation protocol.

| | |
|------------------------------|--------------|
| ABV (% vol.) | Up to 14 |
| pH | As from 2,9 |
| Total SO ₂ (mg/L) | Up to 50 |
| Temperature | As from 16°C |

Survival and activity spectrum of the LACTOENOS® SB3 DIRECT bacteria.

NB: These parameters have a cumulatively inhibiting effect.

EXPERIMENTAL RESULTS

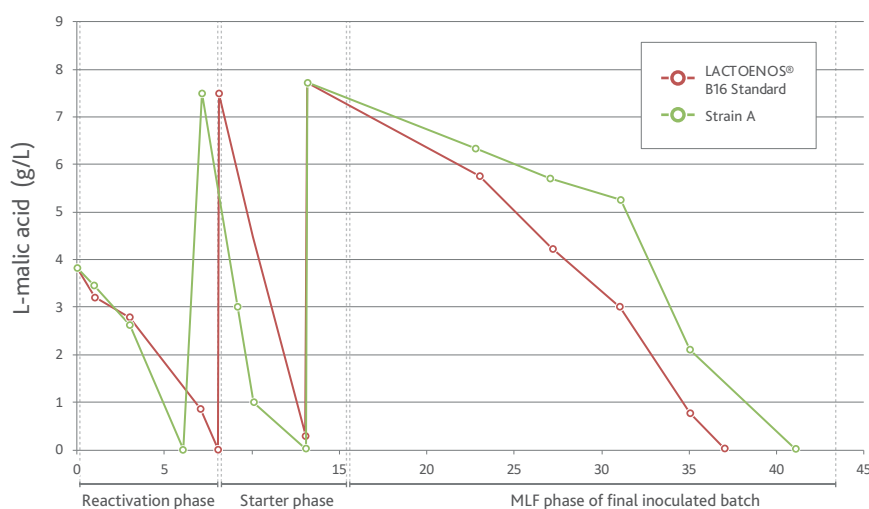


Illustration of the reactivation, starter and malolactic fermentation phases.

Reactivation in must according to the Laffort protocol.

Potential ABV 10.4% vol., pH 2.96, L-malic acid 8.85 g/L, total SO₂ 50 mg/L.



LAFFORT

L'œnologie par nature

PHYSICAL CHARACTERISTICS

Appearance powder Colour yellow-beige

CHEMICAL AND MICROBIOLOGICAL ANALYSIS

| | | | |
|--|-------------------|-----------------------|-------------------|
| Humidity..... | < 8% | Coliforms | < 10 ² |
| Revivable lactic acid bacteria CFU/g | > 10 ⁹ | <i>E.coli</i> /g..... | None |
| Moulds CFU/g | < 10 ³ | Lead | < 2 ppm |
| Contaminating yeasts CFU/g | < 10 ³ | Mercury | < 1 ppm |
| Contaminating acetic acid bacteria CFU/g | < 10 ⁴ | Arsenic | < 3 ppm |
| <i>Salmonella</i> / 25 g..... | none | Cadmium | < 1 ppm |
| <i>Staphylococcus</i> / g..... | none | | |

PROTOCOL FOR USE

REACTIVATION PROTOCOL FOR LACTOENOS® B16 STANDARD IN MUST

(for inoculation of a final volume of 100 hL).

Step 1: Reactivation (20 L – 0.2% of the final volume to be inoculated)

- Prepare 10 L of unchaptalised must from the batch.
- Add sulphite at ½ the dose of the main batch, with a maximum dose of 3 g/hL.
- Add 10 L of unchlorinated water.
- Add LACTOENOS® B16 REACTIVATOR (2 bags of 300g) and mix thoroughly.
- Add LACTOENOS® B16 STANDARD (2 doses of 50 hL).
- Add 10 g of ZYMAFLORE® SPARK yeast (i.e. 0.5 g/L in the reactivation medium), without the rehydration step.
- Mix thoroughly.
- Maintain the temperature at between 22°C/ 71,6°F and 25°C/77°F.
- Determine the initial malic acid content then monitor it every day. **When two-thirds of it is consumed, move on to step 2.**

Remarks on the reactivation step:

- pH adjustment of the reactivation medium is not necessary, given that it increases with addition of the reactivator.
- For low initial concentrations of malic acid (less than 5 g/L in the initial must), it is recommended to monitor the change in malic acid as from the day after starting the reactivation step. If the concentration becomes too low (less than one-third of the initial value), the volume of the reactivation medium can be doubled by adding one volume of starter preparation (see below) and moving on to step 2 once two-thirds of the malic acid is consumed.

Step 2: Starter (5 hL – 5% of the final volume to be inoculated)

(to be started at the same time as step 1).

- Use 5 hL of unchaptalised must at pH 3.1 (de-acidify with bicarbonate if needed).
- Add sulphite at ½ the dose of the main batch, with a maximum dose of 3 g/hL.

- Add 200 g of MALOSTART® (i.e. 40 g/hL for the starter volume), previously rehydrated in 10 times its weight of must.
- Bring the tank to 25°C/77°F.
- Add 250 g of ZYMAFLORE® SPARK yeast (i.e. 0.5 g/L in the starter volume); follow the recommendations to rehydrate it in 10 times its weight of water at 37°C/98.6°F).
- When the reactivation medium is ready, adjust the temperature of the starter to 20°C/68°F and combine the two preparations.
- Determine the initial malic acid content then monitor it every other day. **When two-thirds of it is consumed, move on to step 3.**

Step 3: Inoculation of the final volume of wine (100 hL)

- Add the starter to the tank to be treated: Wine at the end of AF or with the AF complete.
- Add 20 g/hL of MALOSTART®, previously rehydrated in 10 times its weight of wine.
- Mix thoroughly.
- Maintain the temperature at between 16°C/60.8°F and 20°C/68°F until the end of the malolactic fermentation.

REACTIVATION PROTOCOL FOR LACTOENOS® B16 STANDARD IN WINE:

(for inoculation of a final volume of 100 hL)

Step 1: Reactivation (20 L – 0.2% of the final volume to be inoculated)

- Prepare 10 L of unsulphited wine.
- Add 10 L of unchlorinated water.
- Maintain the temperature at 20°C/68°F.
- Add LACTOENOS® B16 REACTIVATOR (2 bags of 300g) and mix thoroughly.
- Add LACTOENOS® B16 STANDARD (2 doses of 50 hL).
- Determine the initial malic acid content then monitor it every day. **When two-thirds of it is consumed, move on to step 2.**

Remarks on the reactivation step:

- pH adjustment of the reactivation medium is not necessary, given that it increases with addition of the reactivator.
- For low initial concentrations of malic acid (less than 5 g/L in the initial must), it is recommended to monitor the change in malic acid as from the day after starting the reactivation step. If the concentration becomes too low (less than one-third of the initial value), the volume of the reactivation medium can be doubled by adding one volume of starter preparation (see below) and moving on to step 2 once two-thirds of the malic acid is consumed.

Step 2: Starter (5 hL – 5% of the final volume to be inoculated)

- Use 5 hL of wine from the final batch to be inoculated.
- De-acidify with potassium bicarbonate up to pH = 3.3.
- Add 200 g of MALOSTART® (i.e. 40 g/hL for the starter volume), previously rehydrated in 10 times its weight of must.
- Bring the tank to 20°C/68°F.
- When the reactivation medium is ready, add the entire volume to the starter.
- Determine the initial malic acid content then monitor it every other day. **When two-thirds of it is consumed, move on to step 3.**

Step 3: Inoculation of the final volume of wine (100 hL)

- Add the starter to the tank to be treated:
- Add 20 g/hL of MALOSTART®, previously rehydrated in 10 times its weight of wine.
- Mix thoroughly.
- Maintain the temperature at between 16°C/60.8°F and 20°C/68°F until the end of the malolactic fermentation.

STORAGE

- Keep refrigerated (-18°C/-0.4°F or 4°C/39,2°F) in its original unopened packaging.
- Shelf life: 30 months at -18°C/-0.4°F.
18 months at +4°C/39,2°F.

PACKAGING

- Dose for 50 hL; 250 hL

