

O-MEGA[®]

MBR[™] process
direct inoculation

APPLICATION

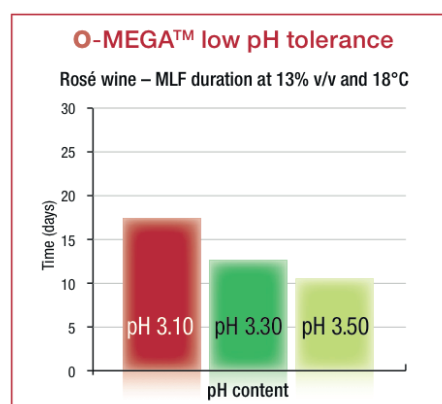
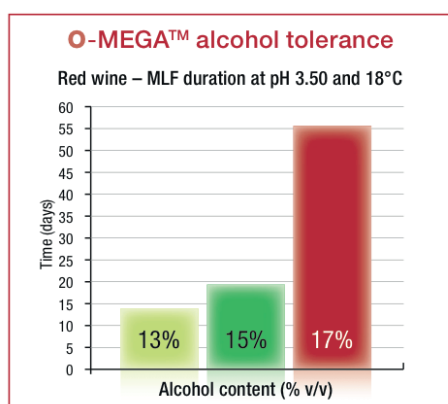
Omega[®] was isolated and selected in South of France by the Institut Français de la Vigne et du Vin (IFV) for its capacity to quickly achieve malolactic fermentation (MLF) in a wide range of wines. **Omega[®]** is a secure and efficient wine bacteria which tolerates low pH or high alcohol conditions with an easy to use protocol (MBR[®] process). Reliable in white, red and rosé wines, **Omega[®]** complements fresh and fruit driven wines and helps to stabilize red wine color because of its slower degradation of acetaldehyde.



MICROBIAL AND OENOLOGICAL PROPERTIES

- pH tolerance ≥ 3.1
- T° tolerance $\geq 14^{\circ}\text{C}$ (57°F)
- Alcohol tolerance: up to 16% vol. (can tolerate up to 17% vol under specific conditions)
- SO₂ tolerance: up to 60 mg/L total SO₂
- Pay attention to molecular SO₂ at low pH
- Good implantation - short lag phase
- MLF kinetic: very fast
- Higher color intensity
- No production of biogenic amines
- Very low volatile acidity production
- Co-inoculation recommended
- Late degradation of citric acid: very low diacetyl production (no buttery or lactic notes).
- Low nutrient demand. Under more difficult MLF conditions, we advise to use a specific bacteria nutrient:
 - for white and rosé wines to avoid amino acids deficiencies and ensure a good growth of the selected bacteria,
 - for structured red wines to avoid amino acids deficiencies and increase the resistance of the selected bacteria against certain inhibitory polyphenolic fractions.

The MBR[®] form of lactic acid bacteria represents a Lallemand specific process that subjects the lactic acid bacteria cells to various biophysical stresses, making them better able to withstand the rigors of direct addition to wine. The conditioned MBR[®] lactic acid bacteria that survive are robust and possess the ability to conduct reliable malolactic fermentation (MLF).



INSTRUCTIONS FOR USE

SEQUENTIAL INOCULATION (Post-alcoholic fermentation)

Bacteria inoculation: two options:

- 1) Direct inoculation without rehydration : open the sachet and add the bacteria directly into the wine after the end of alcoholic fermentation at the top of the tank or while racking the tank and ensure good mixing.
 - 2) Direct inoculation with rehydration step: for best distribution, you can rehydrate the packet of freeze-dried selected wine bacteria in 20 times its weight of clean chlorine free water at 20°C (68°F) for a maximum 15 minutes. Add this suspension directly to the wine towards the end of or after the alcoholic fermentation.
- Stir gently to evenly distribute the selected wine bacteria and minimize the oxygen pickup.
 - Check malolactic fermentation activity (malic acid degradation) every 2 to 4 days.
 - Stabilize wine once malolactic fermentation (MLF) is finished.

Recommended temperature range:

- White wine / rosé wine: from 16 to 20°C (60-68°F).
- Red wine: from 17 to 25°C (63-77°F).

If limiting conditions (high alcohol > 14.5 vol, or low pH < 3.1, or high SO₂ > 45 ppm) : from 18 to 22°C (64-72°F), check malolactic fermentation activity (malic acid degradation) every 2 to 4 days.

CO-INOCULATION

(Simultaneous alcoholic fermentation)

1) Yeast addition

Rehydrate the selected dry yeast according to the instructions. Preferably in presence of a rehydration nutrient and inoculate the must.

2) Bacteria addition

Depending on the SO₂ addition at crush:

- < 5 g/hL (50 ppm SO₂ added): wait for 24 hours
- 5-8 g/hL (50-80 ppm SO₂ added): wait for 48 hours
 - Direct inoculation of bacteria without rehydration : open the sachet and add the bacteria directly to the must/wine to be fermented from the top of the tank (white must) or during a pumping-over (red must).
 - Direct inoculation with rehydration step: for best distribution, you can rehydrate the packet of freeze-dried lactic acid bacteria in 20 times its weight of clean chlorine free water at 20°C (68°F) for a maximum of 15 minutes and add the suspension to the must/wine to be fermented.
- Assure a good distribution.
- Carefully monitor must temperature, which must be below 30°C (86°F) at lactic acid bacteria inoculation (alcohol < 5% vol) and below 27°C (81°F) when the level of 10 % of alcohol is reached.
- Complex nutrients addition at 1/3rd of alcoholic fermentation is recommended.
- Monitor malic acid and volatile acidity.
- If MLF takes place during AF and an unusual increase in volatile acidity is observed add **Bactiless™** (20-50 g/hL, 1.7-4 lb./1000 gal.).
- Top the wine to ensure minimum ullage after alcoholic fermentation (AF) if MLF is not completed.
- Otherwise rack and stabilize after MLF

PACKAGING AND STORAGE

- Available in sachet for inoculation of 25hL.
- Once opened, activator and lactic acid bacteria sachet must be used immediately.
- Activator and lactic acid bacteria sachet must not be used separately.
- This product can be stored for 18 months at 4°C (39°F) and 36 months at -18°C (0°F) in original sealed packaging.
- Sealed packets can be delivered and stored for three (3) weeks at ambient temperature (<25°C – 77°F) without significant loss of viability.

The information 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.