

Pinnacle™ MLF Safe

product information



Type:

Pinnacle™ MLF Safe is an innovative blend of two specifically selected pure *Oenococcus oeni* strains that are synergistically more robust and more stress-tolerant than the individual strains. This blend of bacteria will secure malolactic fermentation in most difficult conditions.

Characteristics:

Thanks to its high concentration formula and high purity standards, **Pinnacle™ MLF Safe** can adapt to many different conditions: high alcohol, high concentration in polyphenols, low pH, etc. **Pinnacle™ MLF Safe** is fast, SO₂ resistant and does not produce detectable biogenic amines.

Application:

- It covers a wide spectrum of wine applications: from low pH white wines to high-alcohol red wines rich in polyphenols.
- It ensures stability of the wine and provides softness and aromatic complexity to the wine.
- **Pinnacle™ MLF Safe** is suitable for sequential or co-inoculation (except **Pinnacle™ Robust**).

Formulation:

Pure concentrated active freeze-dried culture of two *Oenococcus oeni* strains, maltodextrin as carrier.

Instructions for use:

Open the sachet, add directly to the wine and mix gently without oxygenating. For more difficult wines (low pH, high alcohol), rehydration with non-chlorinated water is recommended to keep the maximum viability/vitality. To do this, dilute 1:10 for 15 min at room temperature. However, if non-chlorinated water is not available then direct pitch is recommended.

Dosage:

1 g/hL
This will bring a quantity of microorganisms sufficient to complete malolactic fermentation in all wines (even the most difficult) in a short time.

Storage conditions:

-18°C (-0.4°F).

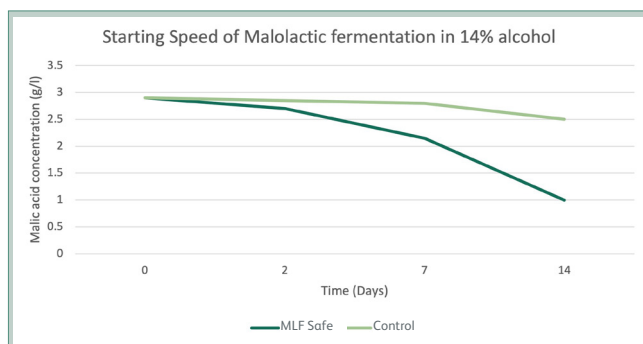
Shelf life:

Three years from date of manufacture when stored at -18°C (-0.4°F).

One and a half years from date of manufacture when stored at 4°C (39°F).

Packaging:

25g and 250g laminate sachets.



Day	Malic acid concentration g/L	
	MLF Safe	Control
0	2.9	2.9
2	2.7	2.85
7	2.15	2.8
14	1	2.5

Product approved for oenological use, in accordance with the regulation (EC) n° 606/2009 and OIV codex.

The information presented is based on our research and commercial testing and provides a general assessment of product performance. Nothing contained herein is representative of a warranty or guarantee for which the manufacturer can be held legally responsible.

© 2024 AB MAURI / Date: November 2024 / www.pinnaclewineingredients.com

Pinnacle™ MLF Safe

product information

CHARACTERISTICS	
Minimum - maximum temperature range	18-27°C (64-81°F)
pH tolerance	≥ 3.2
Maximum free SO ₂ resistance (mg/L)	< 18
Max total SO ₂ resistance (mg/L)	< 50
Alcohol resistance (%v/v)	≤ 15%
Fermentation rate (malic-to-lactic conversion speed)	Fast
Fruity notes	Moderate
Diacetyl notes	Using co-inoculation - Low; using sequential inoculation - Medium to High
Volatile acidity	Very low
Biogenic Amines production	No
MICROBIOLOGICAL ANALYTICS	
Viable bacteria cells:	> 10 ¹¹ cells/g
Yeast:	< 10 ³ CFU/g
Moulds:	< 10 ³ CFU/g
Acetic acid bacteria:	< 10 ³ CFU/g
E. coli:	Absent in 1g
Salmonella:	Absent in 25g
Lead:	< 2 mg/Kg d.m
Mercury:	< 1 mg/Kg d.m
Arsenic:	< 3 mg/Kg d.m
Cadmium:	< 1 mg/Kg d.m

Physical properties: Colour: beige/cream. Form: fine powder. Solubility: water soluble.

Scientific background:

Malolactic fermentation is complete when a malic acid result of 'not detected', which is usually <0.05g/L by enzymatic analysis. However, a result of 0.1 g/L or less is low enough for the maloactic fermentation to be considered virtually complete and to minimise the risk of spoilage.