



Premium Liquid Cultures *for* Professional Malolactic Fermentation

Wyeast Laboratories, Inc. Technical Data Sheet

PRODUCTS

Premium Liquid Malolactic Bacteria Strains & Blend

› *Oenococcus oeni*

Wyeast malolactic cultures will provide rapid and complete malic acid reduction in high acid wines. Malic acid reduction will balance and soften wine while enhancing flavor and aroma characteristics including vanilla and buttery notes. Malolactic conversion is generally completed within 1-3 months.

DESCRIPTION

A liquid suspension of *Oenococcus oeni* grown in a sterile organic juice based nutrient-enriched medium.

CERTIFICATION

Every malolactic bacteria strain is certified Kosher by the Orthodox Union.

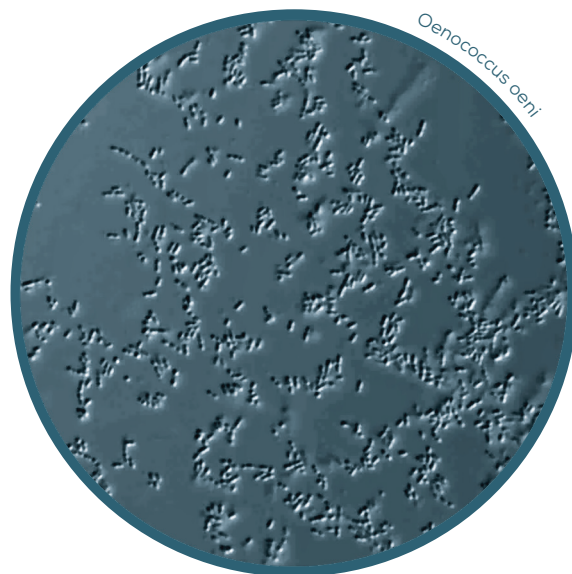


PACKAGING

Available from 1.0 liter and up per strain, in 0.5 and 1.0 liter increments to suit your winery and fermentation needs. Contact our Customer Service Representatives for a custom pitch recommendation.

INOCULATION RATE

Suggested volume: Directly inoculate must at 0.5% of total must/wine volume.



Malolactic Per hL

Must/Wine	Liters of ML	MUST/WINE VOLUME	EXAMPLE
1 hL	0.5 liters	MALOLACTIC LITERS/HL	0.5 L/HL
2 hL	1.0 liters	MULTIPLY HL X L/HL	= 2.0 L
3 hL	1.5 liters	ORDER VOLUME **	= 2.0 L

STABILITY

Store at 34-40 °F (1-4 °C) immediately upon arrival. Best when used fresh. Use within 14 days.

INSTRUCTIONS FOR USE

Allow to come to ambient temperature just prior to use. Sanitize package before opening. Homogenize contents and pour the contents into must that has completed or nearly completed alcoholic fermentation, or add to must once primary yeast fermentation has begun. Free SO₂ levels should be less than 15 ppm. Liquid *Oenococcus oeni* bacteria can be used at the end of primary fermentation or co-inoculated once primary fermentation has begun. No rehydration agents are required.

PRODUCTION

All *Oenococcus oeni* strains are produced in Wyeast's licensed food manufacturing facility from an archival -80 °F (-62 °C) ultra-low temperature bank in order to maintain genomic stability and assure that cultures have consistent fermentation kinetics, flavor profiles, and characteristics.

Minimal processing is required once propagation is complete, and therefore has no detectable effect on the integrity of the culture and significantly limits the possibility of contamination.

INTEGRITY

- All cultures meet or exceed strict quality standards and specifications prior to shipment. Product purity is evaluated at every phase of propagation to the finished product.
- Quality assurance samples are archived and routinely tested for ongoing confirmation of product integrity.
- Cultures are guaranteed by our Product Warranty when used under typical MLF conditions.

PROFESSIONAL SPECIFICATIONS

Oenococcus oeni Malolactic Strains

ANALYSIS	METHOD	SPECIFICATION
Bacteria Concentration	OIV-MA-AS4-01 6.1 Plate Count	> 1.0 x 10 ⁸ cells per mL *
Bacteria Cell Morphology	OIV-MA-AS4-01 5.1 Microscope Analysis	single morphology
Total Yeast	OIV-MA-AS4-01 6.1 Detection of Microorganisms	< 1 CFU / 1.0 mL bacteria cells
Total Non-Lactic Acid Bacteria	OIV-MA-AS4-01 6.1 Detection of Microorganisms	< 1 CFU / 1.0 mL bacteria cells
Malic-Lactic Acid Conversion	Paper Chromatography	conversion completed **
<i>* bacteria cell concentrations are analyzed by skip lot testing</i>		
<i>** conversion of malic to lactic acid is analyzed by skip lot testing</i>		