

MLO medium

CAT N°: 1393

Liquid medium for the propagation and maintenance of wine bacteria

FORMULA IN g/l

Tryptone	10.00	Magnesium sulphate	0.20
Yeast extract	5.00	Manganese sulphate	0.05
Dextrose	10.00	Ammonium citrate	3.50
Fructose	5.00	Polysorbate 80	1.00
L-Cysteine HCl	0.50		

Final pH 4.8 ± 0.2 at 25°C

PREPARATION

Dissolve 35.2 grams of dehydrated medium in 900 mL of distilled water. Mix well and dissolve by heating to complete dissolution. Dispense into appropriate containers and sterilize at 121 ° C for 10 minutes. Cool to 50 ° C and add 100 mL of sterile Tomato Serum. The color is light amber.

The dehydrated medium should be homogeneous, free-flowing and beige with a green tint color. If there are any physical changes, discard the medium.

USES

MLO medium is used for the propagation and maintenance of wine bacteria.

Malolactic fermentation is a biochemical process, conducted in most red wines and some white wines by certain lactic acid bacteria, which results in a lower titratable acidity, improved microbial stability, and improved flavor and mouthfeel. *Oenococcus oeni* is the major bacterial species found in wines during the malolactic fermentation and is well adapted to the low pH and high ethanol concentration of wine.

Tryptone and yeast extract provide nitrogen, vitamins, minerals and amino acids essential for growth. Glucose and fructose are used as the carbon and energy sources. The use of fructose in the growth medium as an electron acceptor has usually been seen as beneficial for most strains of *O.oeni*. Magnesium sulphate and Manganese sulphate provide inorganic ions. Citrate is an alternative energy source to sugar metabolism, is related with the diacetyl production in wines and, at a low pH, inhibits most microorganisms. L-Cysteine hydrochloride is the reducing agent. Tween 80 is an emulsifier.

BIBLIOGRAPHY

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STORAGE

Once opened keep powdered medium closed to avoid hydration.

