



MaloBacti™ HF2 Direct Inoculation

The Solution for Low pH or High Alcohol. MaloBacti™ HF2 Direct Inoculation has an outstanding performance to conduct fast malolactic fermentation in wine with high alcohol content or low pH, and it works equally well in both red and white wines. MaloBacti™ HF2 is a strain of *Oenococcus oeni* and was isolated from a Pinot Noir wine.

β-glucosidase Activity

MaloBacti™ HF2 DI was isolated from a Pinot Noir with 15.4% vol. of alcohol. Among all commercially available MLF starter cultures, MaloBacti™ HF2 DI has the lowest β-glucosidase activity. Therefore, it is very suitable for colour sensitive red wines.

MLF strain	Activity β-glucosidase (nmoles 4MU measured as min/g of dry biomass)	Activity β-glucosidase (nmoles 4MU measured as min/g of dry protein)
MaloBacti™ HF2 DI	15.3	60
Competitive 1	16.3	66.6
Competitive 2	22.3	81
Competitive 3	25.2	94.1

Properties

- pH range from 3.0 to 4.2
- Ethanol tolerant to 16% vol. alc
- SO₂ tolerance at pH 3.3 ≤ 40ppm
- Tolerant to high alcohol conditions, up to 16% vol. alc
- Very tolerant to low conditions, down to pH 3.0
- Temperature tolerant down to 13°C
- Colour protective by lowest β-glucosidase activity (see table 1)

Technical Advice

- Perfectly suitable for simultaneous and sequential inoculation
 - » Simultaneous: 24-48hrs after inoculation, up to max. pH 3.5
 - » If the pH is >3.5, sequential inoculation is recommended
 - » Late simultaneous: at 8-9° Brix
- Recommended wine temperature 18-20°C
- Take out the bacteria package out of the freezer 30 min. before use
- Add directly into the tank. Mix it without oxygen intake (as much as possible)
- Under difficult conditions (slow primary fermentation, high total SO₂, low YAN and high alcohol), maintain temperature between 18-20 degrees and use MaloControl™ BIO
- DI packets must be used immediately after opening. The contents can be dissolved in 4 litres of wine when adding to smaller tanks or barrels (i.e 25ml per 225ml barrel)

Package Content

Freeze-dried MLF starter cultures; *Oenococcus oeni* with a minimum cell count of > 2 × 10¹¹ CFU/g. DSZM21224. Min 2 years at -18°C, 4 weeks at +4°C, 5 days at 4 - 6°C. Always use the whole package at once.

