

The standard for malolactic fermentation in red and white wine Freeze dried bacteria strain without citric acid metabolism

No diacetyl in wine !

MaloBacti™ CN1 represents a new generation of freeze dried MLF starter cultures of *Oenococcus oeni* with unique properties. **MaloBacti™ CN1** has the ability to avoid diacetyl formation from citric acid degradation.

- **Protection of the varietal characters and flavours the in wine after MLF.**
- **No increase in the volatile acidity in the wine because no acetic acid production.**
- **No buttery or butter-scotch flavour because no diacetyl production.**

New A³ process !

The new **A³** process accommodates an increased number of active cells in combination with a so far unreached fast activation and perfected adaption of the bacteria for the inoculation in wine or must.

- **For fruity red and white wines. No more diacetyl flavour and no more volatile acids!**
- **Increase of the survival rate of the bacteria at inoculation.**
- **Ideal adaptation to difficult conditions in wine already in 8-12 hours!**

Oenological properties

- **No formation of diacetyl !**
- pH range from 3,2 to 4,2
- Ethanol tolerant up to 14% vol.
- SO₂ tolerance at pH 3,3 < 20ppm
- Temperature range: >16-26°C
- For red and white wine

Practical application advice

1. Dissolve the freeze dried product of **MaloBacti™ CN1** for **25hl in 1 litre** or for **250hl in 10 litres** none chlorinated water at about **23-28°C**. Stir for approx. **5-8 min.** until it's fully dissolved. After **8 hours stir well again** to avoid CO₂ production.
2. Inoculation of wine after **min. 8 to max. 12** hours, keeping the solution at **23-28°C**.
3. By reaching a pH of **3,8** the bacteria are **completely activated**. For an optimal result an inoculation between pH **3,4 and 3,5** is required, verify with a pH meter if necessary.
4. Inoculation at the end of the primary fermentation is required (10-20g residual sugar). **MaloBacti™ CN1** is also well suitable for a simultaneous inoculation, e.g. at low pH.

Shelf life

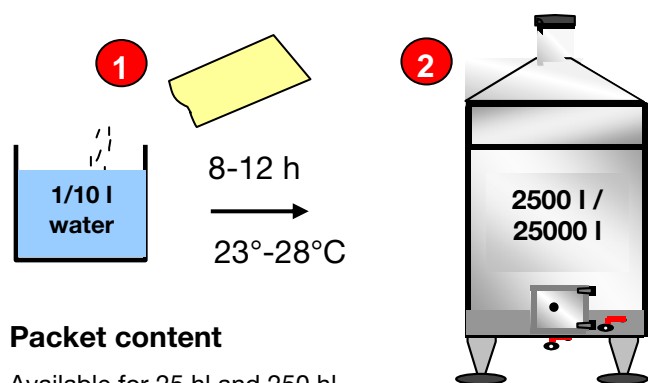
2 years at min. -18°C, 4 weeks at 4°C

Additional information

After activation the suspension can be stored at **4-6°C for max. 5 days**. The temperature of the suspension has to be adjusted to the wine in order to avoid a temperature shock. Stir again well before inoculation.

For a correct suspension it's important to use exactly **1 litre of water for a 25 hl and 10 litres for a 250 hl** pouch of **MaloBacti™ CN1**. The addition of SO₂ can be done right after the completion of the MLF in order to avoid the growth of other undesired microorganisms.

The addition of **Thiamine (Vit.B1)** or **FermControl™** to the primary fermentation is recommended to lower the SO₂ formation of yeast.

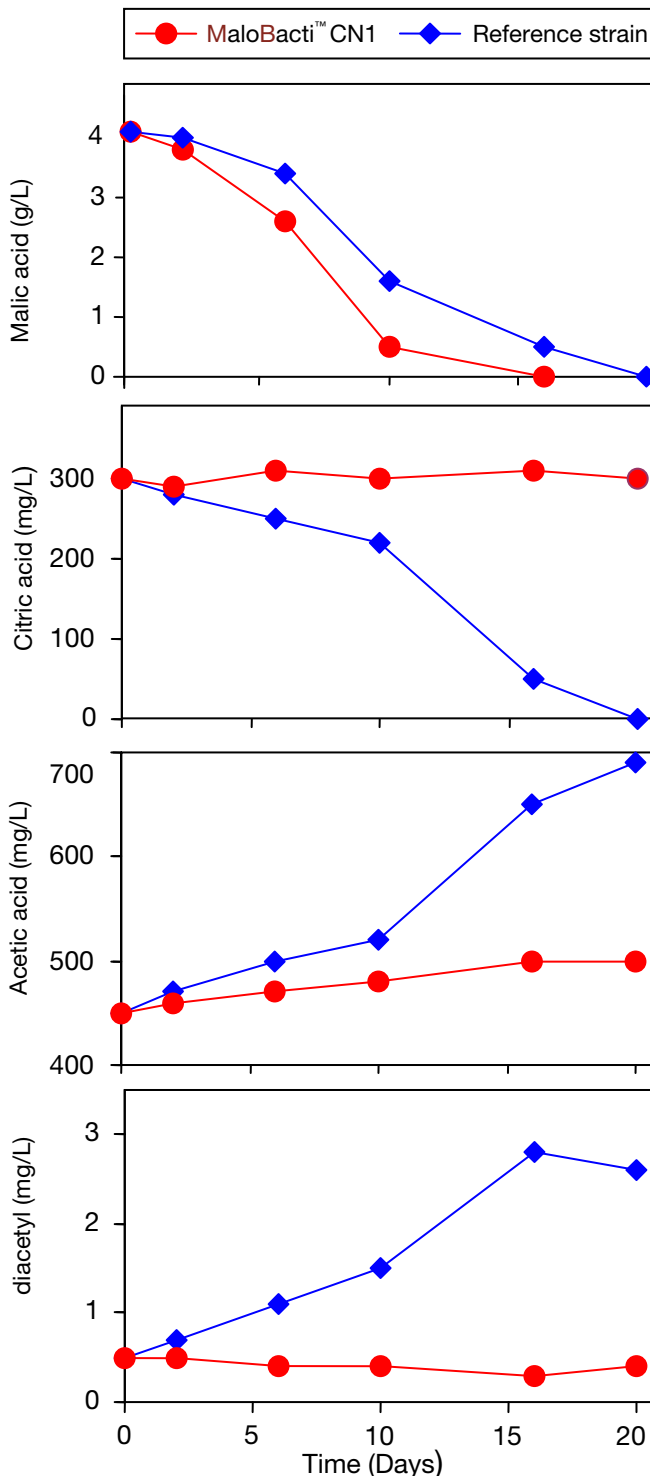


Packet content

Available for 25 hl and 250 hl wine or must. Freeze-dried MLF starter cultures *Oenococcus oeni* with a minimum cell count of > 2 x 10¹¹ CFU/g. Strain: 22827.

MaloBacti™ CN1 MLF starter culture without "citrat-metabolism"

Practical example MaloBacti™ CN1
Pinot Noir, pH: 3,5; 13% vol. alc; 15 ppm SO₂; Temp. 18°C



Graphic 1

MaloBacti™ CN1 has no lag phase and performs a fast and more reliable degradation of all the malic acid in the wine due to activation of the culture before use.

Graphic 2

MaloBacti™ CN1 protects the fruity flavors in the wine because the culture does not degrade the citric acid as normally observed during malolactic fermentation. This also reduces the risk of haze in the wine because the citric acid forms stable compounds with metal ions.

Graphic 3

MaloBacti™ CN1 does not produce acetic acid from the citric acid. Therefore no increase in volatile acidity as normally observed during malolactic fermentation. Even in wines from highly botrytis infected grapes, the formation of VA is very much limited.

Graphic 4

The graph shows that MaloBacti™ CN1 does not produce any additional diacetyl from citric acid which normally gives the buttery notes in wine as normally observed in standard starter cultures for the malolactic fermentation.