



MaloStar® Fruit

Oenological, second-generation, citrate-negative bacterial culture for diacetyl and acetate-reducing vinification of fruit-driven wines

Product description

MaloStar® Fruit facilitates malolactic fermentation (MLF) in wines to be vinified in a fruit-driven style, whilst retaining the grapes' natural citric acid. The *Oenococcus oeni* CN2 strain developed by Erbslöh supports the potential for additional aromatic components that are lost during spontaneous MLF, or MLF with conventional MLF starter cultures. The acid lends the wine freshness and structure and promotes a balance between the wine's key flavours.

Citrate negative means the MaloStar® Fruit bacterial culture does not degrade citric acid. At the same time, it suppresses the formation of diacetyl from citric acid, which leads to the formation of lactic or buttery notes, which mask the fresh/fruit aromas through their richness.

MaloStar® Fruit completely safeguards MLF as, by preserving the citric acid, its negative properties prevent the formation of additional volatile acids that are always produced during spontaneous MLF, or MLF using conventional starter cultures.

Potential formation during MLF of volatile acids from glucose caused by a shortage of pantothenic acid is avoided by a special breeding process and activation of the starter culture using Erbslöh's patented process.

Permitted according to EU Commission Regulation no. 934/2019. User must check compliance with national regulations.

Laboratory tested for purity and quality.

Other benefits	<ul style="list-style-type: none"> Promotes aromas by retaining citric acid Fruit aromas not masked by diacetyl from citric acid Reduction in potential formation of volatile acids through retention of citric acid The citrate-negative and therefore diacetyl-reducing characteristics of the MaloStar® Fruit strain facilitate secure MLF with shorter vinification time. No diacetyl management is necessary when MLF is complete. Storage on the lees or addition of SO₂ customary in this context is no longer required. Resulting reduced sulphurisation can take place immediately, preventing the proliferation of wild microorganisms and ensuring dependability.
Recommended for	<ul style="list-style-type: none"> White and red wines. Also suitable for simultaneous inoculation.
Conditions for MLF	<ul style="list-style-type: none"> Free SO₂ < 10 mg/L Total SO₂ < 25 mg/L Minimum inoculation temperature 18 °C. Subsequent temperature decrease to cellar temperature does not impede continuation of MLF pH value > 3.2 Alcohol content < 13.5 % ABV
N. B.	<ul style="list-style-type: none"> Sensitive to higher alcohol contents Sensitive to SO₂ <p>Yeasts that support acids or that cause high SO₂ contents, and SO₂-preserving vitamin C can lead to a marked increase in SO₂ content through obligatory sulphurisation of mash/must and cause deactivation of the starter culture.</p>

Dosage

After activation, the dual-section bag filled with MaloStar® Fruit bacterial culture and activator is sufficient for 2,500 L must/wine. Add simultaneously to the must 24 hours after the yeast, or add consecutively to the young wine still warm from fermentation immediately after alcoholic fermentation.



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Activation

Put 2.5 L water* in a clean container and add the activator (section 1) from the dual-section bag. Stir well. After five minutes add the starter culture (section 2) until fully suspended and stir well again. Cover and leave to stand, allowing the CO₂ generated to escape. The bacteria is activated at room temperature over a period of six to eight hours. Stir several times during this period, especially in the early stages, to prevent deposition and a resulting lack of nutrients. Adjust to must/wine temperature before adding to the tank (temperature difference < 4 °C). Then add to the must/wine. The key wine/must parameters (pH value, temperature, alcohol content and total SO₂ content) should be compared with the required bacteria conditions before using the cultures. Activation causes the bacteria to start to metabolise whilst absorbing vital nutrients, primarily pantothenic acid. A shortage of pantothenic acid during MLF can stimulate the formation of acetate from glucose. To prevent such a shortage, the bacterial culture has been enriched with nutrients during breeding. These nutrients supply adequate quantities of this vitamin and so reduce the risk of glucose forming a volatile acid.

Packaging

1 aluminium dual-section bag The freeze-dried bacteria are filled in protected gas conditions.

Storage

Store at maximum 4 °C for 24 months. Temporary, slight warming during transportation does not affect activity.

*Water

Use of demineralised or distilled water (25 °C) is preferred. If there is no alternative, potable water (25 °C) can also be used, provided it contains no more than 0.3 mg/L Cl₂ according to the German Water Quality Regulation.