

Product description

Highly concentrated BioStart® Forte SK2® - starter cultures for direct and simple initiation of the malo-lactic fermentation in white or red wine.

Permitted according to the laws and regulations currently in force. Purity and quality are proved by specialized laboratories.

Origin

The freeze-dried starter preparation BioStart® Forte SK2® for white and red wines was positively tested in the screening of different *Leuconostoc oenos* strains (*oenococcus oeni*). Good vitality in the wine and rapid propagation rates were evident. Isolation was performed from selected wines with spontaneous acid degradation. The so selected new strain was tested under extreme conditions and has succeeded to prevail.

**Lactic acid
bacteria for red
wine and white
wine**

Properties

Optimal malic acid degradation and growth capacity at low pH-values and low temperatures were the main criteria for the selection of BioStart® Forte SK2®. The stress tolerance is already tested and stabilized in the production stage. The functional safety of application is considerably increased.

Organoleptic properties

The structure and harmony of the wines is greatly improved. BioStart® Forte SK2® starter inoculum enhances the typical bouquet for every individual white wine variety. In the white wines, particularly in Burgundy wines, paprika, peach and honey flavours develop. Also blossom and exotic fruit components can be elaborated. The warm and soft red wine character after completed malo-lactic fermentation is very much pronounced. In particular cherry, but also raspberry and strawberry aromas develop and moreover light almond and blossom flavours. The wines present themselves as complex, round and harmonious.

Total viable cell count/concentration

The concentration of the new BioStart® Forte SK2®-cultures is considerably high. The contents of a 20 g package for the inoculation of 1000 L wine for instance, provides an inoculation capacity of 1×10^{11} /g, thus start conditions are excellent and secure.

Product and process advantages

- the use of BioStart® Forte SK2® to start malo-lactic fermentation in wine, leads to a better control of the starting point and the duration of fermentation and of the effects on aroma and structure of wines.
- after malo-lactic fermentation, wines have an increased microbiological stability.
- after malo-lactic fermentation, wines have a lower SO₂ demand.
- an accomplished malo-lactic fermentation is a harmonious acid correction.
- wines show improved organoleptic properties after a successful malo-lactic fermentation.

Conditions for malo-lactic fermentation with BioStart® Forte SK2®

- Total SO₂: a maximum of 45 mg/L. Free SO₂: a maximum of 15 mg/l. **Ideal: no SO₂ !**
- Sugar: To ensure optimum course of malo-lactic fermentation, the starter bacteria should be added shortly before the end of the alcoholic fermentation (residual sugar < 4 g/L) or immediately after fermentation end.
- pH-value: The pH-value of the wines should be 3.0 or higher (if necessary, adjust to pH 3.0 or to a higher pH with Erbslöh-Kalk).
- Temperature: The temperature of the wine should be above 14 °C.
- Alcohol content: max. 14.5 % by volume.
- It is favourable when the wine is left on the sound lees or, at least, on the fine lees.
- CO₂ can inhibit malo-lactic fermentation and has to be expelled by careful stirring or pumping over.
- An additional dosage of the nutrient substance BioStart® Nutri promotes a smooth course of malo-lactic fermentation.



BioStart[®] Forte SK2[®]

Application

The new BioStart[®] Forte SK2[®] strain is alternatively applicable for white and red wine. The strain selection and concentration, as well as the stress induction at a stage in advance, lead to improved conditions for the onset and completion of malo-lactic fermentation with, at the same time reduced dosages. Add the contents of the package for 10 hl to 0.2 litres; for 50 hl to 1.0 litre water (approx. 25 °C), wait for 30 minutes and stir from time to time, then add to the wine and mix. For improved nutrient supply, add BioStart[®] Nutri. By an addition of yeast extract, suspending in sterile filtered or decoct must/water mixture and adjusting to pH 4.0, this culture can be prepropagated.

Storage

The freeze-dried BioStart[®] Forte SK2[®] starter culture is particularly stable. Storage of unopened, original packagings is possible over a period of 18 months in the refrigerator or over 30 months at – 18 °C. A short-term warming during transport has no influence on activity. No cold-storage cabinet is required for the storage of BioStart[®] Forte SK2[®]!

Producer: Lallemand S.A. France.

Sales by: Erbslöh Geisenheim AG, Erbslöhstr. 1, 65366 Geisenheim, Germany

ERBSLÖH Geisenheim AG • Erbslöhstraße 1 • D-65366 Geisenheim • Tel: +49 6722/708-0 •

Fax: +49 6722/6098 • info@erbsloeh.com • www.erbsloeh.com

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