

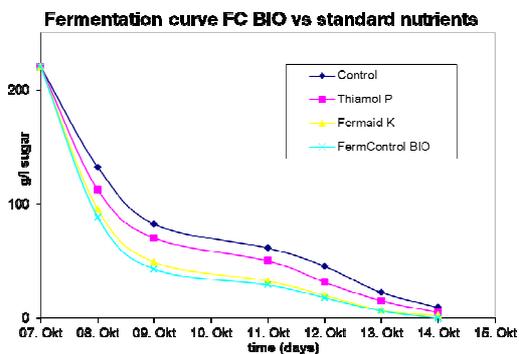
FermControl™ BIO

SPECIAL NUTRITION SUPPLEMENT FOR THE SUPPORT OF THE YEAST METABOLISM

► General

The alcoholic fermentation in wine challenges all yeasts. Low pH, high osmotic pressure and increasing alcohol levels all have a significant influence on the yeasts metabolism. To achieve the main objectives for winemaking the yeast requires optimal conditions to ferment reliably and give best sensorial results. The addition of only nitrogen (such as DAP) to fermentations is insufficient to ensure a reliable fermentation without reduced characters and clean flavours. It's equally essential to provide all co-factors that regulate the yeasts' metabolism. These so-called supplements other than nitrogen ensure an efficient utilization of the indigenous nitrogen sources in the juice to conduct a secure, clean and flavourful fermentation. They enable the yeast to have optimal conditions to produce high quality wines.

FermControl™ BIO is one pouch solution for a complete nutrition and supplementation of yeast during alcoholic fermentation. It improves all metabolic functions, the fermentation dynamics and overall quality of all wines. FermControl™ BIO is a fully organic certified supplement for the alcoholic fermentation in wine according to EC 834/2007 and 889/2008 organic regulations.



► Graph 1

Fermentation trial in practical scale 2011

The Fermentation trial shows the performance of FermControl™ BIO in comparison to standard nutrients. The fermentation curve is more consistent and linear towards completion of the fermentation. The final level of residual sugar is also the lowest of all the trial wines.

Wine data: Pinot Blanc 2011, 13,3 vol% alc.

► No reduced off-flavours

FermControl™ BIO improves the aromatic quality of all wines. The addition of FermControl™ BIO in nitrogen poor juices will show the best effect.

With the addition of FermControl™ BIO to the alcoholic fermentation the formation of undesired sulphur compounds of yeast will be avoided. This results in clean wines with enhanced varietal character and without reduced off-flavours.

FermControl™ BIO has multiple quality benefits...

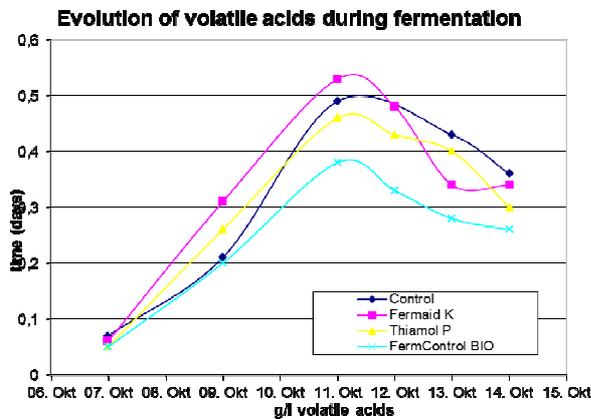
- It's pure and doesn't give a yeasty impact on the wine.
- Inhibits the formation of reduced off-flavours.
- Increase the formation of fruity esters.
- Lower the formation of acetic acid and SO₂.
- Provide better conditions for an easier MLF.
- Can be used in all kinds of juices and musts.

► Properties

FermControl™ BIO improves the ability of the yeast to utilize the natural nitrogen sources in grape juice or must. All metabolic functions of the yeast will be improved without the formation of undesired by-products or off flavours. The fermentation speed can easily be managed by temperature control.

FermControl™ BIO is a complete solution

- It's a one pouch solution!
- Replaces all other rehydration and fermentation additives.
- Adds all required amino acids, trace elements and vitamins to the ferment.
- Helps to eliminate DAP additions.
- Improves the uptake of natural nitrogen sources like ammonia and other amino acids.



► **Graph 2**

This graph shows the evolution of VA derived from the alcoholic fermentation in the same trial. As can be seen from the graph using **FermControl™ BIO** will result in significantly lower VA formation compared to other products containing DAP and the control.

► **Practical Use**

Dissolve the recommended dose of **FermControl™ BIO** in water or wine at approx. 20 °C. Stir until you get a homogenous suspension without any solids.

The addition of **FermControl™ BIO** is to be carried out at two stages during the fermentation:

Addition 1: Add the first half of the recommended dose (15 or 20 g/hL) to the juice or must two days after yeast inoculation. Or in the case of wild ferments once yeast activity has reached the main fermentation phase.

Addition 2: Add the second half of the recommended dose (15 or 20 g/hL) to the must two-thirds the way through fermentation (~8 brix / 4.5 Baume).

► **YAN Requirement**

To ensure optimum performance of **FermControl™ BIO** the YAN requirement is min. 140 ppm. If YAN is insufficient please adjust with max. 20-30 g/hL of DAP, please add simultaneously with **Addition 1**.

► **Dosage**

Application	Dosage
Juice or must < 23 °Brix/12.5 Baume	2 x 15 g /hL
Juice or must > 23 °Brix/12.5 Baume	2 x 20 g /hL

► **Remedial Application**

Application	Dosage
Sulphide formation between 1 st and 2 nd addition	10 g/hL
Sulphide formation between 2 nd addition and 2 Baume (3.6 Brix)	5 g/hL

► **Ingredients**

FermControl™ BIO is a preparation of inactivated organic yeast produced on the basis of certified organic ingredients and compliant with the Organic regulation EC 834/2007 & 889/2008.

The special purification process ensures a high microbial purity. The product is packed under CO₂ atmosphere. All components are GMO-free and compliant with Food Grade Standard.

► **Shelf life**

FermControl™ BIO will be delivered in 1 kg or 5 kg aluminium pouches as a one-component solution. While stored dry and at max. 20 °C the product can be stored for 24 months. Storage at higher temperatures may damage the product. Once the pouch is opened, use all contents within max. 7 days.



Disclaimer: The information, data and recommendations contained in this product information are provided in good faith, obtained from reliable sources, and believed to be true and accurate as of the date of revision. The PI serves as description of the products and its characteristics when used according to the protocol. No warranty, expressed or implied, regarding the product described in this PI shall be created or inferred by any statement in this PI.