



# FermControl™

Special nutrition supplement for the support of the yeast metabolism

## General

Stuck or sluggish fermentations are still present problems in the wine industry. Another problem is the formation of reduced off-flavours. Both problems occur when the metabolism of the yeast is affected by either a lack of nutrition or by other external factors or inhibitors such as pesticides.

In case of a lack of nitrogen the addition of DAP or yeast extract is a commonly used method to avoid off-flavour and to ensure a complete fermentation. But in many fermentations the addition of DAP or yeast extracts is insufficient to ensure a reliable and "clean" fermentation as the deficit of important co-factors prevents the yeast to utilize naturally present nitrogen sources to conduct a secure and clean fermentation.

**FermControl™** provides specific co-factors to the fermentation by adding a balanced combination of yeast nutrition compounds and co-factors that compensate natural deficits in the grapes. It enables the yeast to have an optimal metabolism.

Fermentation example in practice  
Sugar degradation

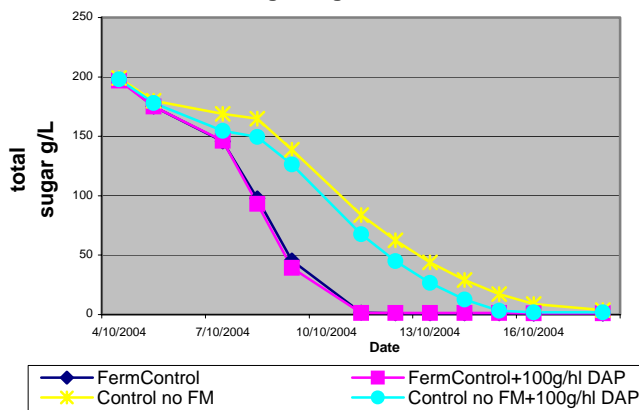


Fig.1 shows a fermentation trial on a practical scale. The application trial compares **FermControl™** as a pure addition versus **FermControl™** plus 100g/hL DAP, only DAP and a control without the addition of DAP and **FermControl™**.

The addition of **FermControl™** leads always to an efficient and reliable fermentation. It becomes obvious that a lack of nitrogen was not the reason for the sluggish fermentation. The sample with the addition of 100 g/hL DAP didn't give a serious advantage in fermentation performance. The results show clearly that a nitrogen deficit was not the reason for a sluggish fermentation.

## Properties

**FermControl™** 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 is easily managed by temperature control. **FermControl™** will

- Improve the metabolism of the yeast population during the entire fermentation.
- Improve the uptake of nitrogen sources like ammonia and other amino acids.
- Inhibit the formation of reduced off-flavours.
- Increase the formation of fruity esters. It doesn't give a yeasty impact on the wine.
- Lower the formation of acetic acid and SO<sub>2</sub>.
- Provide better conditions for an easier MLF

## No reduced off-flavours

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

With the addition of **FermControl™** 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™** improves the ability of the yeast to produce fruity esters.

**FermControl™** helps eliminate DAP use and reduces the need for copper sulphate fining.

**FermControl™** can be used in all kinds of juices and musts.

## Practical Use

FermControl™ will be delivered as one component product in 1kg or 5kg pouches.

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

The addition of FermControl™ 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).

## Dosage

Juice or must < 23° Brix / 12.5 Baume	30 g/hL
Juice or must > 23° Brix / 12.5 Baume	40 g/hL

## YAN Requirement

To ensure optimum performance of FermControl min. YAN requirement is 120-140ppm. If YAN is insufficient please adjust with max. 20-30g/hL of DAP, please add simultaneously with Addition 1.

## Shelf life

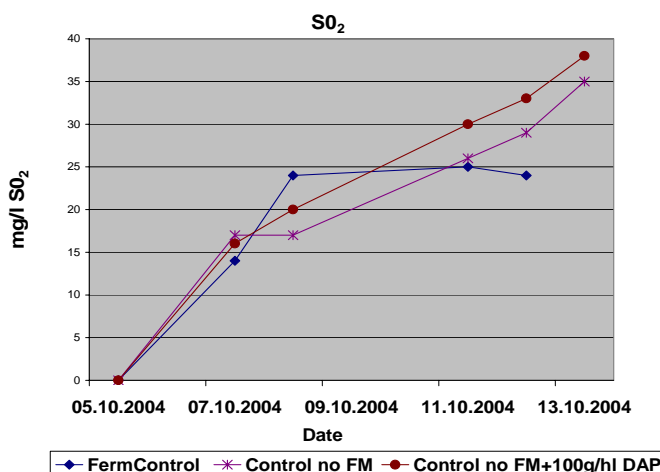
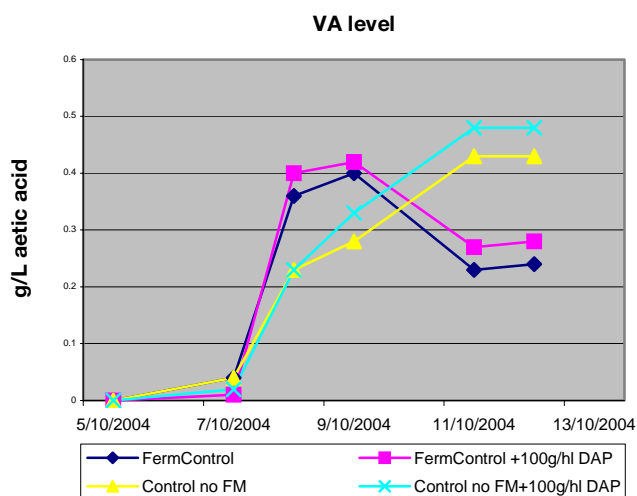
FermControl™ will be delivered in vacuum-packed aluminium pouches. Store under cool dry conditions. Storage at high temperatures may damage the product. Once packet is opened use all contents within one week.

## Ingredients

FermControl™ is a blend of natural derived vitamins, trace elements and a special purified yeast preparation. The special purification process ensures a microbial integrity. The product is packed under CO<sub>2</sub> atmosphere.

FermControl™ is GMO free.

Graph 2 shows the effect of FermControl™ on the VA formation capacity. The FermControl™ treated wines have a significantly lower level of VA. The addition of only DAP has a limited effect.



Wine data: 12.2% vol alcohol; pH 3.3; TA 5.8g/L.

## For further information please contact:

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