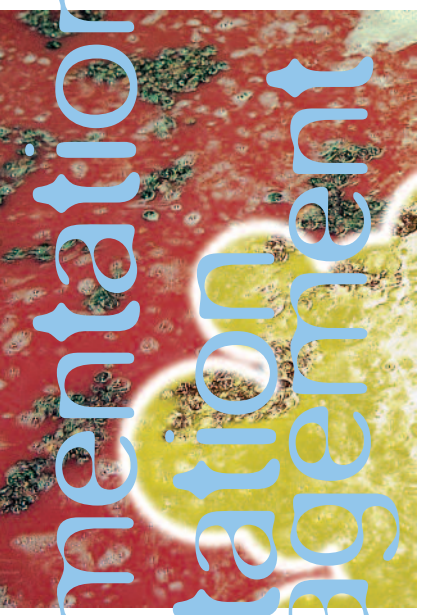
Gestion des fermentations
Fermentation management



Delvozyme®

Enzyme preparation based on lysozyme.

Controlling lactic bacteria is critical when making high quality wine.
SO_2 has long been the only tool for microbial control in wine-making but its use is controversial because of the disadvantages and technical constraints for the user (volatility, incidents of oxidation and combination, reduced effectiveness at high pH levels). Nevertheless, it remains a vital subsidiary tool for its antioxidant and antiseptic attributes.

■ *Delvozyme®, a purified enzyme based on lysozyme extracted from egg white,is a viable additive for achieving optimum microbial control.*
The capacity of lysozyme to weaken the lactic bacteria walls, destroying them by cellular lysis has been generally proven. This attribute has been exploited for some years in the dairy industry to avoid undesirable (butyric) fermentation.

■ *Delvozyme®, now authorized for use in winemaking, enables the growth of lactic bacteria: Oenococcus, Lactobacillus and Pediococcus to be controlled.*

■ *Delvozyme® has no effect on yeasts nor on acetic bacteria.*

Applications

■ **Avoidance of bacterial spoilage during alcoholic fermentation.**
Adding Delvozyme® at a dose of 100 to 150 mg/l on putting into tanks assists in avoiding and limiting the proliferation of spoilage bacteria. This facilitates the sound progression of alcoholic fermentation and reduces the risks of increased volatile acidity, production of unpleasant taste and nutritional competition.

■ **Avoidance of lactic disease during alcoholic fermentation and at the end of difficult fermentation.**
At a dose of 250 to 350 mg/l Delvozyme® will restrain the reproduction of lactic bacteria, even at high pH levels, while conserving the fermentation potential of the wine yeast.

■ **Controlling the onset of malolactic fermentation (MLF).**
When it is important to minimize the risk of starting MLF before the end of alcohol fermentation, (vinification of whole grape clusters, Beaujolais vinification or maceration with high pH), adding 100 mg/l of Delvozyme® will delay MLF by ± 10 days.

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Delvozyme®

■ **Stuck malo-lactic fermentation (MLF).**
Adding 300 to 500 mg/l of Delvozyme® after settling will inhibit MLF in white and rosé wines.

■ **Microbiological stabilization of wine after malo-lactic fermentation.**
Adding 150 to 250 mg/l of Delvozyme® will enable the bacteria population to be controlled and will thus limit the possibility of organoleptic defects production.

User advice and safety instructions

■ Dissolve Delvozyme® in 10 times its volume of warm water (about 20° C - 70° F), leave to stand for (40 to 45 minutes) and then mix thoroughly.
■ Incorporate into the must to be treated, making sure that it is evenly distributed.
■ Delvozyme® acts as soon as incorporated (for 24 to 48 hours) but has no residual effect.
■ Using Delvozyme® enables doses of SO_2 to be reduced, but does not fulfil the antioxidant functions of the latter.
■ Using it at the same time as bentonite very significantly reduces enzyme activity. Care must be taken therefore to allow a lapse of several days between the addition of Delvozyme® and clarifying or protein removal.

Stability of Delvozyme® in the wine.
■ In white and rosé wine: Delvozyme® remains present after treatment, and may increase protein instability. The risk of breakage is limited under normal storage and transportation conditions. However, a control check is recommended before bottling. Adding metatartric acid is not recommended (haze effect).
■ In red wine: Delvozyme® may combine with the phenolic components.
Doses should be increased by 30 % to obtain a lytic effect.

Formulation

Delvozyme® is available in the form of a micro-granulated white powder with a purity (lysozyme chlorhydrate content) equal or greater than 95 %.

Packaging and storing

■ Plastic containers of 1 kg.
■ Keep cool and dry (5 - 15° C or 41 - 59° F) for 24 months maximum, unopened in the original packaging.

YOUR DISTRIBUTOR

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