



LALLZYME MMX™

Enzymatic formulation for improving ageing on lees and wine filterability

DESCRIPTION

LALLZYME MMX™ is a microgranulated enzymatic preparation for the improvement of wine filterability and clarification of must from botrytized grapes and for ageing on lees. It contains pectinases, obtained from *Aspergillus niger*, and β -glucanases, originated from *Trichoderma harzianum*.



BENEFITS & RESULTS

The action of this special enzymatic formulation is possible in two different scenarios.

1. In case of contamination of *Botrytis cinerea*, glucans come from grapes to must and, then, to wine. These glucans create problems in wine clarification and filtration, with a reduction of wine quality and an increase of cost and time for processing it. β -glucanase activities contained in LALLZYME MMX™ are able to hydrolyse these undesired glucans. The effects are an easier wine fining and less problems of filter clogging.
2. The addition of LALLZYME MMX™ in wine during ageing on lees, accelerates yeast autolysis with a faster and more abundant release of all the compounds that are inside the yeast cells, that significantly contribute to aroma complexity. Moreover, the degradation of the yeast cell wall enriches the wine in mannoproteins that are positively correlated to mouthfeel, longer taste, longevity and colloidal stability.

LALLZYME MMX™ can be used on each type of wine, white, rosé and red, in presence of wine lees.

The increased richness in polysaccharides in wine helps the malolactic fermentation start and acts positively on proteic and tartaric stability.



PROPERTIES

- Fast and efficient degradation of glucans from *Botrytis*.
- Faster ageing on lees.
- Easier filtration.

INSTRUCTIONS FOR OENOLOGICAL USE

Dosage: 2.5-3.0 g/hL for hydrolization of glucans from *Botrytis* at temperatures above 15°C (59°F).
2.5-3.0 g/hL for ageing on lees at temperature above 15°C (59°F).
3.5-4.0 g/hL for any treatment at lower temperature, from 13 to 15°C (55-59°F)

Add LALLZYME MMX™ in wine, tank or barrel, after the alcoholic fermentation. For ageing on lees, for a better effect on wine quality, remove the heavy lees and leave only the fine lees.

Low temperature tolerance at 13°C (55°F); the temperature strongly influences the contact time.

At 15°C (59°F) the normal contact time is between 3 and 5 weeks; at lower temperatures and in case of high glucan content, the action of the enzyme needs to be prolonged until 6 weeks or more.

In case of ageing on lees, regular stirring of lees is strongly recommended.

+ NOTES

The enzyme activity is not affected by normal SO₂ additions.

LALLZYME MMX™ is a protein, do not use bentonite during enzyme treatment.

A glucan test may be used to check for any residual glucans from *Botrytis* contamination.

PACKAGING AND STORAGE

- Plastic boxes of 100 g.
- Store LALLZYME MMX™ in a cool and dry place, preferably between 5 and 15°C (41-59°F), in the original sealed packaging.

Distributed by:



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The information in this document is correct to the best of our knowledge. However, this data sheet should not be considered to be an express guarantee, nor does it have implications as to the sales condition of this product. April 2022

LALLZYME MMX™ is a Lallemmand recipe, formulated based on the results of research and trials performed by Lallemmand and its research institute partners, in compliance with the most complete current legislation.



WINE
YEASTS



WINE
BACTERIA



NUTRIENTS
/PROTECTORS



SPECIFIC
YEAST DERIVATIVES



ENZYMES



CHITOSAN



VINEYARD
SOLUTIONS



LALLEMAND OENOLOGY

Original **by culture**

Visionary biological solutions - Being original is key to your success. At Lallemmand Oenology, we apply our passion for innovation, maximize our skill in production and share our expertise, to select and develop natural microbiological solutions. Dedicated to the individuality of your wine, we support your originality, we cultivate our own.

www.lallemmandwine.com