LALVIN CY 3079™

YSEO® PROCESS
Yeast Security Optimization

ORIGIN AND APPLICATION

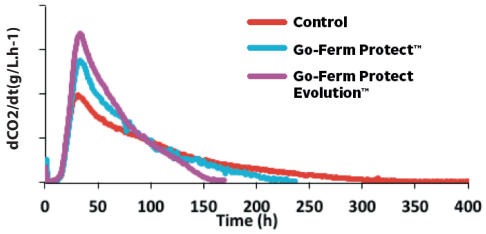
The reference yeast for white Burgundy. Slow fermenter with early onset post-fermentation autolysis, contributes complexity and mouthfeel to white wines.

A selection made by the Bureau Inter-professional des Vins de Bougogne (B.I.V.B) from yeasts collected from Chardonnay fermentations in the Burgundy region of France during the 1990-1991 vintages.

Lalvin CY3079™ respects the varietal character of the grape, but, due to its tendency to undergo early onset autolysis, it tends to also contribute characters described as fresh butter, toasted bread, honey, hazelnut, vanilla or almond when left on lees. It tends to result in a wine with complexity and mouthfeel, often described as a smooth and creamy texture. The release of polysaccharides from the yeast during autolysis tends to contribute to mouthfeel, increasing the roundness and weight of the palate. Soil type and the climatic conditions of the vineyard (cool or hot climates) influence the aroma observed.

Lalvin CY3079™ has established itself as the reference yeast for premium barrel Chardonnay in many of the top Chardonnay producing regions around the world.

This yeast is a steady fermenter that tends to slow down considerably at the end of fermentation. This is desirable with some winemakers as extended lees contact is their protocol. If an extended, slow end of fermentation is not desirable, ***Lalvin CY3079™*** responds well to rehydration in Go-Ferm Protect Evolution™.



This graph compares the fermentation kinetics of ***Lalvin CY3079™***, in a sterol deficient must, when rehydrated in different rehydration products. Note the tailing off of the fermentation rate at the end of fermentation is significantly reduced by rehydrating ***Lalvin CY3079™*** with Go-Ferm Protect Evolution™.

The ***Lalvin CY3079™*** yeast, was selected from nature, and has since been improved using the Lallemand proprietary process called YSEO®.

Lallemand has developed a unique yeast production process called YSEO® (Yeast SEcurity and Sensory Optimization). This process increases fermentation reliability and security and ensures fewer organoleptic deviations, but not all yeast can be prepared by this process. The process (when compared to non YSEO®):

- Improves the yeast cells assimilation of essential micronutrients and vitamins.
- Improves the yeasts ability to implant in the must for a more reliable fermentation.
- Linked to a reduction in yeast stress thereby reducing H_2S, VA and SO_2 production.
- Shorter lag phase.
- Improves the resistance and adaption of the yeast under difficult fermentation conditions.

MICROBIAL AND OENOLOGICAL PROPERTIES

- Recommended for white wines; barrel fermentation, *sur lie* aging.
- *Saccharomyces cerevisiae var. cerevisiae*
- Desirable fermentation femperature: 15-25°C.
- Short-moderate lag phase and moderate fermentation vigour.
- Medium-high relative nitrogen demand (under controlled laboratory conditions).
- Sensitive to oxygen deficiencies, so rehydrating the yeast using Go-Ferm Protect Evolution™ is highly recommended.
- Alcohol tolerance 14.5v/v ***subject to fermentation conditions.***
- Moderate relative potential for SO_2 production.
- Killer factor neutral.
- ***Lalvin CY3079™*** is considered MLF friendly.
- Low foaming hence good for barrel fermentation.

FURTHER READING *(Please request this booklet from your Lallemand representative).*

Lallemand Winemaking Update – Number 1 2008: 'The YSEO® Process'

Evaluating the YSEO® Process to prepare dried winemaking yeast - Summary of a study done by Washington State University and Lallemand.

INSTRUCTION FOR USE

Dosage Rate:

- 25g/hL of Active Dried Yeast (this will provide an initial cell population of approximately 5 x10^6 viable cells/mL)
- 30g/hL of Go-Ferm Protect Evolution™
- Nitrogen source from the Fermaid range

Procedure for 1000L ferment.

1) Add 300g of Go-Ferm Protect Evolution™ to 5L of 40-43°C clean, chlorine free water. Stir until an homogenous suspension free of lumps is achieved.
2) When the temperature of this suspension is between 35-40°C, sprinkle 250g of yeast slowly and evenly onto the surface of the water, whilst gently stirring. Ensure any clumps are dispersed.
3) Allow to stand for 20 minutes before further gently mixing.
4) Mix the rehydrated yeast with a little juice, gradually adjusting the yeast suspension temperature to within 5-10°C of the juice/must temperature.
5) Inoculate into the must.

Further Notes

- Steps 1-5 should be completed within 30 minutes.
- It is best to limit first juice/must volume addition to one tenth the yeast suspension volume and wait 10 minutes before the addition to juice.
- To minimize cold shock, ensure temperature changes are less than 10°C.
- It is recommended that juice / must be inoculated no lower than 18°C.
- It is recommended to use complex nutrition nitrogen source, such as either **Fermaid K™** or **Fermaid O™**.

PACKAGING AND STORAGE

- All Active Dried Yeast should be stored dry, between 4-12°C and the vacuum packaging should remain intact.