

# uvaferm® HPS™

**YSEO™**  
PROCESS  
Research in collaboration  
with Washington State University

## ORIGIN AND APPLICATION

**Uvaferm HPS™ is the highest producer of polysaccharides in the Lallemand portfolio. Contributes significantly to mouthfeel, roundness of palate and the softness of tannins.**

Following many years of research from Centro Superior de Investigaciones Científicas (CSIC) in Spain, supported by Lallemand, has resulted in the isolation of **Uvaferm HPS™**.

This yeast was obtained from a new selection method, patented by the CSIC (P200102541) to isolate a polysaccharide overproducer (*Saccharomyces cerevisiae* derived) from random mutagenesis (non-GMO).

Winemaking trials with **Uvaferm HPS™** have shown the positive impact of yeast mannoprotein overproduction on the quality of premium red wines. In comparative trials with grape varieties such as Cabernet Sauvignon, Tempranillo and Merlot, wines at the end of fermentation exhibited a notable improvement in sensory perception of mouthfeel, roundness and sweetness of the tannins. In addition such wines have become known for strong varietal characteristics with a tendency towards candied fruit.

Often used for the production of early release reds, where roundness and soft tannins are required earlier in the maturation process.

The **Uvaferm HPS™** yeast has since been improved using the Lallemand proprietary process called YSEO®.



## MICROBIAL AND OENOLOGICAL PROPERTIES

- Recommended for red wine production.
- *Saccharomyces cerevisiae* var. *cerevisiae*
- Desirable fermentation temperature: 18-30°C. \*subject to fermentation conditions.
- Alcohol tolerance 16% v/v \*subject to fermentation conditions.
- Medium relative nitrogen demand (under controlled laboratory conditions).
- Moderate production of H<sub>2</sub>S under low YAN conditions.
- Low production of SO<sub>2</sub>
- Short lag phase and moderate fermentation vigour.
- **Uvaferm HPS™** is considered to be MLF friendly; hence either co-inoculation or sequential inoculation is possible.
- Killer factor neutral.

YSEO™ signifies Yeast Security and Sensory Optimization, a unique Lallemand yeast production process to meet demanding fermentation conditions. While not all yeast benefit from this process, YSEO™ improves the reliability of alcoholic fermentation by improving yeast quality and performance and reduces the risk of organoleptic deviation even under difficult conditions. YSEO™ yeasts are 100% natural and non-GMO.



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

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

Evaluation of 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  $5 \times 10^6$  viable cells/mL)
- 30g/hL of Go-Ferm Protect® / Go-Ferm Protect Evolution™
- Nitrogen source from the Fermaid™ range

### Procedure for 1000L ferment.

- 1) Add 300g of Go-Ferm Protect® / 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 AT™** or **Fermaid O™**.

## PACKAGING AND STORAGE

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