









ORIGIN AND APPLICATION

IONYS™ is the first wine yeast that has been selected within the *Saccharomyces cerevisiae* species for its capacity to significantly and naturally acidify must during fermentation. Wines obtained from high maturity grapes and fermented with this yeast are well-balanced and more fresher.

IONYS[™] is the result of an innovative wine yeast selection with specific properties to have a lower sugar yield conversion into alcohol. The selection was done in collaboration with INRA (Institut National de la Recherche Agronomique) Montpellier, France.

An innovative selection made in collaboration with DEQUIN Sylvie, TILLOY Valentin, ORTIZ-JULIEN Anne, NOBLE Jessica: Method for obtaining low ethanol-producing yeast strains, yeast strains obtained therefrom and their use.



Protection of this yeast product by international patent pending WO2015/114115 – all reproduction or propagation is strictly prohibited.

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

Particularly recommended for red wines from hot climate regions (with high pH > 3.5 and potential alcohol >13.5 %).



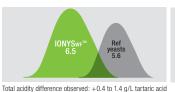
- Saccharomyces cerevisiae
- High acidification power: total acidity difference: +0.4 to 1.4 g/L tartaric acid / pH decrease: 0.04 to 0.2
- High glycerol production (up to 15 g/L)
- Low alcohol producer (0.4 0.8 % v/v in winery conditions)
- Very low volatile acidity production
- Very low SO₂ production
- Ethanol tolerance: 15.5 % alcohol
- Nitrogen requirements: Very high (appropriate nutrition is required)
- Long but steady stationary phase
- Optimum range of T°: 20 to 28 °C



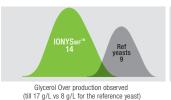


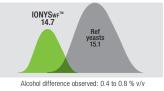
SPECIFIC PROPERTIES REGARDING ACIDITY AND pH

Those values represent the average difference between results obtained from 30 winery trials with *IONYS*™ against other wine yeasts under the same conditions (red wine fermentation).









INSTRUCTION FOR USE

Highly recommended to inoculate as soon as rehydration is done to ensure a good implementation. At fruit receival, SO_2 level should be ≤ 4 g/hL. In high maturity conditions (high potential alcohol) in order to protect yeast against osmotic shock, the use of Go-Ferm Protect® / Go-Ferm Protect Evolution™ (30 g/hL) is highly recommended during the yeast rehydration phase.

- 1. Suspend 30 g/hL of Go-Ferm Protect® / Go-Ferm Protect Evolution™ in 20 times its weight of clean 43°C water.

 Important: If Go-Ferm Protect® / Go-Ferm Protect Evolution™ is not used, water temperature should be 35-40°C to avoid damaging the yeast.
- 2. Once the temperature of the Go-Ferm Protect® / Go-Ferm Protect Evolution™ solution has dropped to 40°C, add 25 g/hL of *IONYS™*. Stir gently and wait for 20 minutes.
- 3. Add to the must. The temperature difference between the must to be inoculated and the rehydration medium should never be over 10°C (if any doubt, please contact your supplier or Lallemand).
- 4. The total rehydration duration should never exceed 45 minutes.
- 5. It is essential to rehydrate the yeast in a clean container.
- 6. The rehydration in must is not advisable

NUTRITION IS A KEY POINT WHEN USING

A well-balanced nutrition is of primary importance for wine yeast during fermentation (**Fermaid O** $^{\text{TM}}$ is the latest nutrient developed by our winemaking nutrient research team).

- 1. First addition of *Fermaid O*™ at beginning of fermentation.
- 2. Second addition of *Fermaid O™* around 1/3 sugar depletion (the end of exponential growth and the beginning of the stationary phase)

Note: in condition of nitrogen deficiency, yeast assimilable nitrogen may be insufficient to avoid fermentation issues (For more information, please contact your Lallemand representative).



Available in 500 g. To be stored at 4°C. Use once opened

The information herein is true and accurate to the best of our knowledge; however, this data sheet is not to be considered as a guarantee, expressed or implied, or as a condition of sale of this product.

