



*Saccharomyces cerevisiae x bayanus*

# ES 181



**enartis** FERM

## YEAST FOR HIGH-QUALITY, AROMATIC WHITE WINES

**ES181** is a strain selected for the production of white wines characterized by intense aromatic expression.

### SENSORY CHARACTERISTICS

**ES 181** is a yeast recommended for the production of white wines noted for strong varietal aroma expression.

Excellent for fermentations at low temperatures and in hyper-reductive conditions.

**ES 181** has intense  $\beta$ -lyase activity which makes it an ideal strain for fermenting varieties that are rich in sulfurous aromatic precursors such as Sauvignon Blanc and Riesling.

At low temperatures and with proper nutrition, it produces white and tropical fruit aromas that increase aromatic complexity without overpowering varietal character.

On the palate, wines taste soft and well balanced.

### MICROBIOLOGICAL CHARACTERISTICS

Fermentation temperature	10 - 20°C (50-68°F)
Lag phase	short
Fermentation speed	high, vigorous strain not recommend for the fermentation in barrel
Alcohol tolerance	≤ 16.5% v/v
Killer factor	killer
Resistance to free SO <sub>2</sub>	high (40 mg/L free SO <sub>2</sub> )

### ENOLOGICAL CHARACTERISTICS

Nitrogen needs	low
Oxygen needs	low-medium
Volatile acidity production	low
H <sub>2</sub> S production	low
SO <sub>2</sub> production	low
Glycerol production	medium
Compatibility with malolactic fermentation:	low, it delays the start of MLF.

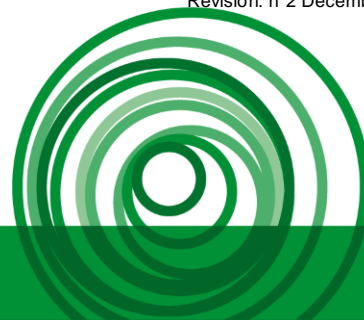
### APPLICATIONS

White wines with varietal character  
White wines fermented at lower temperatures  
White wines fermented in hyper-reductive conditions  
White wines to be aged in barrel  
Late harvest wines



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## MAXIMIZING QUALITY

To enhance the production of aromatic compounds, it is recommended to ferment **ES181** under hyper-reductive conditions, at temperatures lower than 15°C (59°F) and in juices with turbidities lower than 70 NTU. These are difficult conditions for yeast and can lead to sluggish or stuck fermentations. It is important to provide a good source of amino acids and survival factors. A complex nutrient such as **Nutriferom Arom** and **Nutriferom Arom Plus** should be added at inoculation. **Nutriferom Arom** and **Nutriferom Arom Plus** provide sterols and unsaturated fatty acids useful for maintaining effective cellular metabolism in the presence of alcohol and also amino acids that act as precursors for aromatic compound synthesis. At 1/3 sugar depletion, the addition of **Nutriferom Advance** ensures a clean and complete fermentation and helps prevent the formation of reductive compounds.

## DOSAGE

20-40 g/hL (1.67 – 3.3 lb/1000 gal)

The highest dosages are recommended in case of rotten grapes, high sugar content and difficult microbiological conditions.

## INSTRUCTIONS FOR USE

- Suspend dry yeast in 10 times its weight of clean, warm (35-38°C or 95-100°F) water. Stir gently.
- Let suspension stand for 20 minutes, then stir gently again.
- Add suspension to juice when beginning to fill the fermentation tank. The difference in temperature between yeast suspension and juice should not exceed 10°C (18°F).
- Homogenize by pump-over or mixing inoculated juice.

Working to the above-mentioned times and methods ensures maximum activity of re-hydrated yeast.

## PACKAGING AND STORAGE

Vacuum packed in 0.5 and 10 kg

Sealed package: store in a cool (preferably 5-15°C or 41-59°F), dry place.

Opened package: carefully reseal and store as indicated above; use quickly.

Product approved for winemaking by the TTB.

Legal Limit: N/A

Product is in compliance with the *Codex Cœnologique International*.

Product approved for winemaking in accordance with  
Reg. (EC) N. 606/2009

Contains E 491 Sorbitan monostearate.