



SafCEno™ SH 12



FOR INTENSE THIOLS EXPRESSION

Ingredients: Yeast (*Saccharomyces cerevisiae**), Emulsifier: Sorbitan monostearate (E/INS 491)

*According to « Revisiting the taxonomic synonyms and populations of *Saccharomyces cerevisiae* – Phylogeny, Phenotypes, Ecology and Domestication. » Pontes A., Hutzler M., Brito P.H. and Sampaio J.P., 2020 and « Genome Diversity and Evolution in the Budding Yeasts (*Saccharomycotina*). Genetics. » Dujon B.A., Louis E.J., 2017 ; 206(2):717-750.

Origin:

SafCEno™ SH 12 has been isolated in the South-East of France (Gard vineyard) and comes from a selection program carried out in partnership with the French Institute of Vines and Wines to select a yeast strain revealing varietal thiols aromatic compounds.

Enological characteristics:

Fermentation abilities:

- **Excellent implantation ability thanks to its Killer phenotype**
- Short lag phase, medium fermentation kinetics
- Maximum ethanol tolerance: up to 14.5% v/v
- **Recommended range of fermentation temperature: 10-30 °C (50-86°F).**
Temperature > 18°C (64.4°F) at fermentation start is recommended for thiols release.
- Complete fermentation even on highly clarified musts (<50 NTU)
- Low nitrogen requirements: Ratio $\frac{\text{YAN (mg/L)}}{\text{Sugars (g/L)}} \geq 0.7$

In case of strong nitrogen deficiency, an organic nutrient supply at yeast inoculation is recommended to facilitate thiol precursors' uptake.

Metabolic characteristics:

- High total acidity maintenance
- Medium-low production of volatile acidity
- Low H₂S production and medium-low SO₂ production
- High thiol release, particularly 4-Mercapto-4-MethylPentan-2-one / 4MMP (IRC7L genotype, L: full length allele)
- High ethyl esters production

Suggestions of use:

For fruity white and rosé wines, rich and complex in thiols:

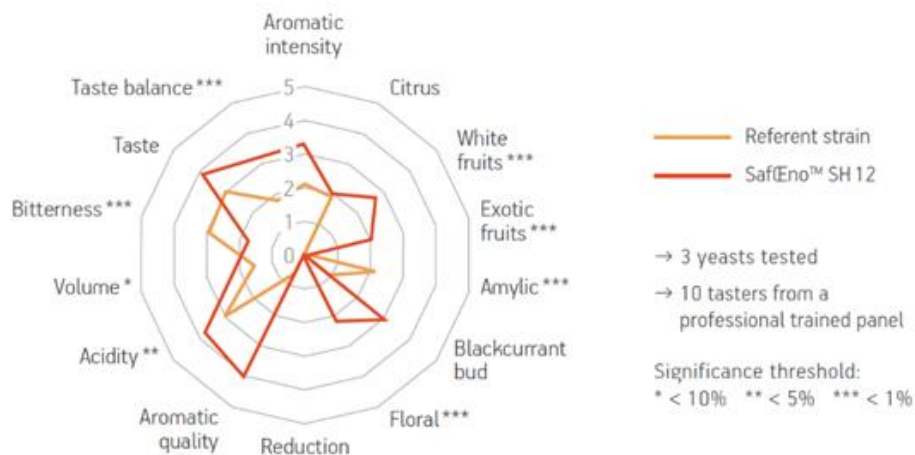
Thanks to its specific enzymatic pool, **SafCEno™ SH 12** allows a high thiols release, particularly of the 4MMP (boxwood, blackcurrant bud) balanced by the 3-mercaptohexanol (grapefruit) and its limited conversion into 3-mercaptohexyl acetate (passion fruit). It harmoniously reveals the aromatic potential of thiolic grape varieties (Sauvignon Blanc, Colombard, Gros and Petit Manseng, Syrah, Grenache, etc...) by bringing citrus and tropical fruit notes to the wines. This aromatic balance is supported by a medium ethyl esters production, which strengthen complex fruity notes (particularly red fruits on rosés and white fruits on whites).

Its ability to maintain total acidity allows combining freshness and aromatic persistence, thus offering a well-balance



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION

Aromatic and sensory analysis:



Loire Valley – Sauvignon Blanc
 13.7% v/v, PH 3.1
 Ratio Yan/S adjusted to 0.83

Direction of Use: The Lesaffre know-how and continuous yeast production process improvement generates **an exceptional quality of dry yeasts able to resist to a very wide range of uses, including by-passing acclimatization, cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile.** Winemakers can choose to use our E2U™ yeast with the process that best fits their needs:



Direct inoculation: Inoculate the desired quantity of yeast directly into the must in the fermentation tank, taking care to homogenize the entire volume. In white or rosé wines, ideally sprinkle directly the yeast into the fermentation tank during the filling (after settling) to ensure a good homogenization. Alternatively pour the desired quantity of yeast on the surface of at least 10 times their weight of must. Gently stir to avoid lumps. Immediately transfer into the tank and homogenize the entire volume.

With prior rehydration and potential acclimatization: Gently pour the desired quantity of yeast in 10 times their weight of tap water at 15-37°C (59-98.6°F). Gently stir to avoid the formation of lumps. Leave it to rest for 20 minutes and incorporate the yeast starter to the fermentation tank with homogenization. Following the rehydration, it is possible to continue with an acclimatization by incorporating to the yeast starter 1/2 of a volume of must and leave it to rest for 10 minutes. Repeat the operation until the temperature difference between the fermentation tank and the yeast starter culture is less than 10°C (50°F).

Dosage: Still white and rosé wines: 20 g/hL (1.67 lb/1000 gal)

Packaging:

Cardboard box of 20 vacuum-packed sachets of 500g/1.1 lb each (Full box net weight: 10 kg/22.05 lb)

Cardboard box of 1 vacuum-packed 10kg/22.05 lb (Full box net weight: 10kg/22.05 lb)

Cardboard box of 160 controlled atmosphere packed sachets of 5g each (Full box net weight: 800g / 28.22oz).

Storage and compliance: The product must be stored and transported in dry conditions and protected from direct sunlight. For less than 6 months, the product can be stored/transported at ambient temperature below 25°C (77°F) without affecting its performances. Peaks up to 40°C (104°F) are allowed for a limited period of time (less than 5 days). Fermentis® recommends a long-term storage at a controlled temperature (below 15°C/59°F), once the product arrives to the final destination. Fermentis® guarantees the product complies with OIV specifications until its Best Before End Date in the storage conditions mentioned above. The product is also authorized as per TTB.

Each Fermentis® yeast is developed under a specific production process and benefits from the know-how of the Lesaffre group. This guarantees the highest microbiological purity and maximum fermentation activity.

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