

GAÏA™

ACTIVE DRY YEAST

Natural protection for grape harvest during pre-fermentation



↓ OENOLOGICAL APPLICATIONS

From the harvest to the vat or press, the microorganisms responsible for acetic production (such as *Kloeckera apiculata*) may undergo unhindered multiplication. The risks become even greater when pre-fermenting maceration takes place, especially if temperatures are too high (>10°C) or if the process takes a long time. The Institut Français de la Vigne et du Vin (French Wine and Vine Institute) has selected **Gaïa™**, a *Metschnikowia fructicola* yeast with no fermenting power to fight against this harmful flora. It also enables the filling of the ecological niche by limiting microbial deviations and the risk of differences in excessively early alcoholic fermentation. **Gaïa™** is a completely natural tool for limiting pre-fermentation sulfiting, whether used during vatting or earlier (during harvesting). It also facilitates the subsequent implementation of selected and inoculated *S. cerevisiae* yeasts to guide fermentation.

↓ OENOLOGICAL CHARACTERISTICS

- Species: *Metschnikowia fructicola*
- Killer factor: active K2
- Resistance to alcohol: very weak
- Resistance to SO₂: 50 mg/L of total SO₂
- Resistance to low pH: at least up to pH 3.0
- Optimum temperature for use in maceration: 8 to 16°C (if pre-fermentation is cold, 8 to 12°C).
- Fermenting power: very weak
- Implantation power: high.
- Multiplication power: high.
- Competition power: high.
- Does not produce unwanted metabolites (in particular volatile acidity).
- Requires sequential use of selected *Saccharomyces cerevisiae* yeasts for alcoholic fermentation.

↓ MICROBIOLOGY QUALITIES

- Revivable yeasts: > 10 billion cells/g.
- Microbiological purity: less than 10 wild yeasts per million cells.

↓ DOSAGE AND USE

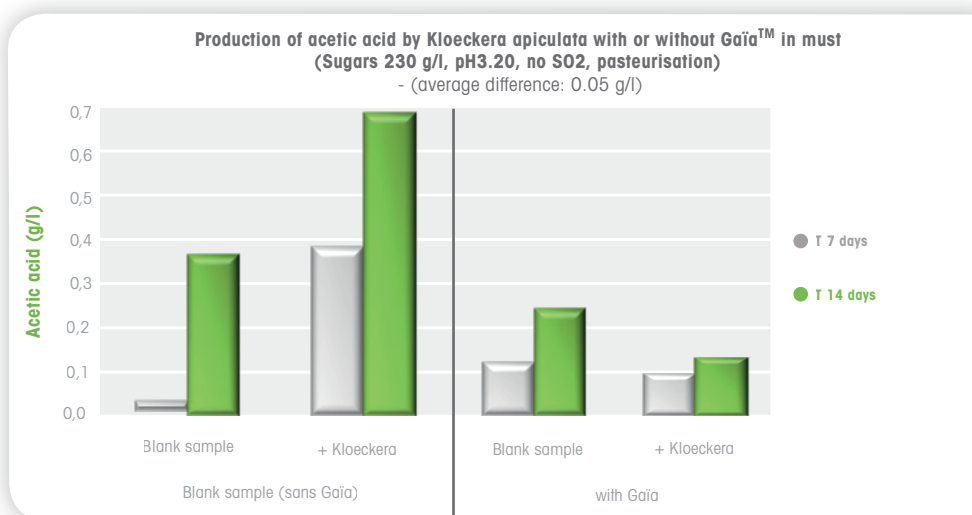
- Dosage: 7 to 20 g/hl, to be adapted to the time of use and degree of risk of microbe contamination (functioning depends on the length of the operation, the temperature, the pH, how ripe the grapes are and the amount of SO₂ added).
- Rehydrate in 10 times its weight in water at 20 to 30°C. Direct rehydration in the must is not recommended. It is essential to rehydrate the yeast in its own separate container.
- Shake gently and leave it in water for 15 minutes.
- If necessary, acclimatize the water to the temperature of the must by gradually adding the must. The difference in temperature between the must to sow and the rehydration environment should be no more than 10°C.
- The total duration of rehydration should not exceed 45 minutes.

↓ PACKAGING AND STORAGE

- 500 g vacuum packed aluminium polyethylene sachet.
- **Store in a cold (4°C) dry place.** Once open the product should be used quickly.

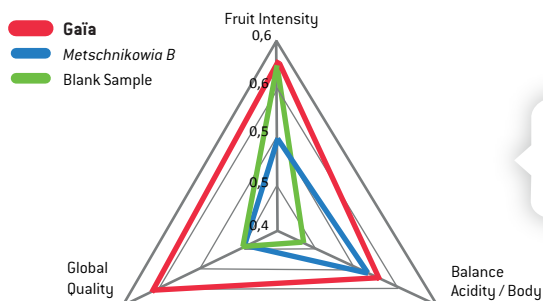
PRE-FERMENTING STAGES: KEEPING LIVING BEINGS UNDER CONTROL WITH LIVING BEINGS

Kloeckera apiculata (or *Hanseniaspora uvarum*) is a microorganism capable of producing up to ten times more acetic acid than the *Saccharomyces cerevisiae* oenological yeasts. This wine spoilage yeast is often the cause of acetic differences in pre-fermenting maceration. The use of SO₂ effectively enables the limitation of its growth, however sometimes large doses are required to bring the risk down to an acceptable level. In the absence of SO₂, the situation is clearly more random. With **Gaïa™**, the initial population of *Kloeckera* is contained and only grows slightly during the pre-fermenting phase. Consequently, acetic acid content remains very low in comparison to samples contaminated with *Kloeckera* but not protected by **Gaïa™**.



NATURAL PROTECTION FOR THE SENSORIAL PURITY OF WINE

Gaïa™ was selected from other *Metschnikowia* yeasts as it also enables improvement of the sensorial expression while preserving purity.



Sensorial evaluation after the maturing of a pinot noir red wine in 2.5 hl vats with cold pre-fermentation, with or without *Metschnikowia* – Average values for two vintages

One of the strategies and tools developed by the IOC for the control of oxidation and microbiological contamination, whether in the pre-fermentation, fermentation or ageing, **Gaïa™** is a powerful tool for reducing the concentration of SO₂ in your wine.

