ZYMAFLORE® ÉGIDE^{TDMP}

Non-*Saccharomyces* yeasts (*Torulaspora delbrueckii* and *Metschnikowia pulcherrima*) for harvest BIOProtection of grapes and juices, as an SO_2 reduction strategy.

Selected non-GMO Active Dry Yeast (ADY) for use in winemaking. Suitable for the preparation of products intended for direct human consumption, in accordance with regulated winemaking practice.
In accordance with the current EU regulation n° 2019/934.

SPECIFICATIONS AND OENOLOGICAL APPLICATIONS

A formulation of strains of the *Torulaspora delbrueckii* and *Metschnikowia pulcherrima* species sourced from eco-selections for BIOprotection. These strains selected from among the grape's indigenous flora for their organoleptic neutrality will colonise the medium and control the microflora in the pre-fermentation stages.

Combining these two high-implantation-capacity species, the one cryophilic and more SO_2-resistant (*Torulaspora* – in sequences where SO_2 is added to grapes) and the other, particularly healthy during grape inoculation (*Metschnikowia*), ensures that the medium is protected by micro-organisms producing positive results in a wide range of circumstances.

The bioprotective effects of this preparation have been validated by the results of studies:

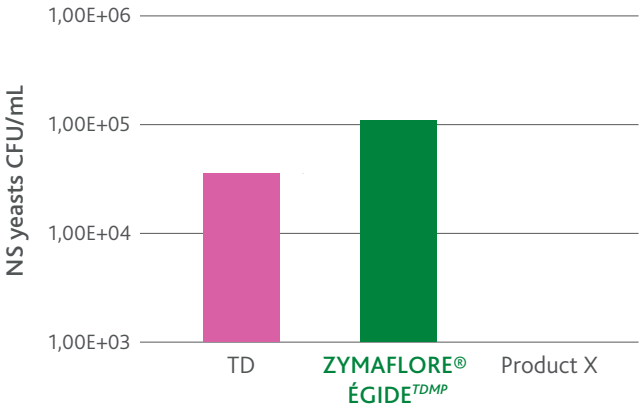
- Colonisation of the medium, without any detected fermentation activity (no assimilation of sugars or nitrogen, no difference in turbidity levels at the end of the settling process).
- Restriction of the growth of indigenous flora.
- Implantation of the inoculated *Saccharomyces cerevisiae* strain facilitated.

EXPERIMENTAL RESULTS

- Gros Manseng, 2016.

181 g/L sugars, initial 160 mg N/L content, settling temperature of 12°C (53.6°F) for 14h.

Must inoculation after pressing at 5 g/hL (50 ppm), with no sulphite addition.



*Count of non-Saccharomyces yeasts at the end of the settling process. Bioprotection is highly evident after inoculation with **ZYMAFLORE® ÉGIDE^{TDMP}** and the non-Saccharomyces yeasts detected correspond only to the T. delbrueckii and M. pulcherrima species.*

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PHYSICAL CHARACTERISTICS

Dehydrated yeast (vacuum-packed).

Aspect ..... Granular

CHEMICAL AND MICROBIOLOGICAL ANALYSIS

Humidity (%)	< 8	*Staphylococcus* (/g)	none
Active dry yeast (ADY) (CFU/g)	≥ 2.10^{10}	*Salmonella* (/25 g)	none
Lactic acid bacteria (CFU/g)	< 10^5	Moulds (CFU/g)	< 10^3
Acetic acid bacteria (CFU/g)	< 10^4	Lead (ppm)	< 2
Yeasts of a different genus, species or strain (%)	< 5	Arsenic (ppm)	< 3
Coliforms (CFU/g)	< 10^2	Mercury (ppm)	< 1
E. coli (/g)	none	Cadmium (ppm)	< 1

PROTOCOL FOR USE

DOSAGE

Recommended dosage: 2 - 3 g/hL (20 - 30 ppm). Increase dosage up to 5 g/hL (50 ppm) in case of low temperatures (stabulation, cold soak at a temperature < 4°C / 39°F), of non-rehydration or of high microbial pressure (red grapes, etc.).

IMPLEMENTATION

- Add **ZYMAFLORE® ÉGIDE**^{TDMP} directly on white or red grapes or on must (healthy grapes), rehydrated or not.
- Without rehydration, sprinkle **ZYMAFLORE® ÉGIDE**^{TDMP} directly on grapes or must.
- When rehydrating, follow the rehydration protocol for yeast (see packing).
- Total preservation time of the leavening agent must not exceed 6 hours.
- For application to equipment, suspend **ZYMAFLORE® ÉGIDE**^{TDMP} in water at room temperature. (Consult the **ZYMAFLORE® ÉGIDE**^{TDMP} label online)
- To ensure the protection and colonisation action without fermentation activity, it is important to keep the temperature at a low level and inoculate with a *Saccharomyces cerevisiae* strain not too late, according to process and temperature.
- Inoculate with *Saccharomyces cerevisiae* (usual dose) to ensure complete alcoholic fermentation.

STORAGE RECOMMENDATION

- Store off the ground in the unopened original packaging at a moderate temperature in a cool area (2-10°C / 36-50°F) not liable to impart odours.
- Optimal date of use: 2 years.

PACKAGING

500 g vacuum pack. 10 kg boxes.

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