

ZYMAFLORE® ÉGIDE^{TDMP}

Non-Saccharomyces yeasts (*Torulaspora delbrueckii* and *Metschnikowia pulcherrima*) in harvest bioprotection, grapes and juices, as an SO₂ 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 regulation (EC) n° 606/2009.

SPECIFICATIONS AND OENOLOGICAL PROPERTIES

A formulation of strains of the *Torulaspora delbrueckii* and *Metschnikowia pulcherrima* species sourced from eco-selections. 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 SO₂-resistant (*Torulaspora* – in sequences where SO₂ 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:

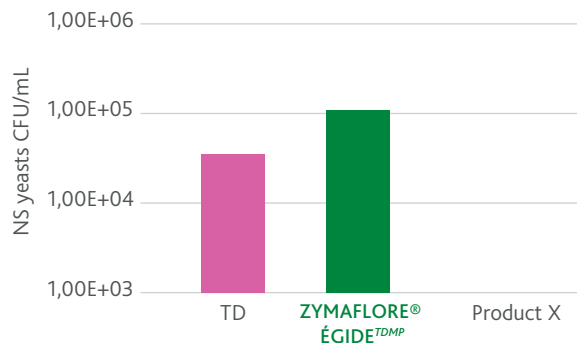
- Colonisation of the medium, without any detected fermentation activity (no assimilation of sugars or nitrogen, no difference in turbidity levels at the end of the settling process).
- Restriction of the growth of indigenous flora.
- Implantation of the inoculated *Saccharomyces cerevisiae* strain facilitated.

EXPERIMENTAL RESULTS

- Gros Manseng, 2016.

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

Must inoculation after pressing at 5 g/hL, with no sulphiting.



*Cell 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.*

PHYSICAL CHARACTERISTICS

Dehydrated yeast (vacuum-packed). Aspect granular

STANDARD ANALYSIS

Humidity (%) < 8 %	<i>Staphylococcus</i> CFU/g None
Living cells SADY CFU/g > 2.10 ¹⁰	<i>Salmonella</i> CFU/25 g None
Lactic acid bacteria CFU/g < 10 ⁵	Moulds CFU/g < 10 ³
Acetic acid bacteria CFU/g < 10 ⁴	Lead < 2 ppm
Wild yeast CFU/g < 10 ⁵	Arsenic < 3 ppm
Coliforms /g < 10 ²	Mercury < 1 ppm
<i>E. coli</i> CFU/g None	Cadmium < 1 ppm

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 (stabilisation, cold soak at a temperature < 4°C / 39°F), of non-rehydration or of high microbial pressure (red grapes, etc.).

IMPLEMENTATION

- Add ZYMAFLORE® ÉGIDETM directly on white or red grapes or on must (healthy grapes), rehydrated or not.
- When rehydrating, follow the rehydration protocol for yeast (see packing).
- Total preparation time of the leavening agent must not exceed 45 minutes.
- To insure 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

- Store in original sealed packages, in a cool dry place (4 to 8°C / 39 to 47°F), off the floor, in an odour-free environment.
- Optimal date of use: 2 years.

PACKAGING

500 g vacuum pack. 10kg boxes.

