ZYMAFLORE® *Alpha* TD n. sacch.

... Potential for *biodiversity*

Non-*Saccharomyces* yeast for the production of wines with strong aromatic complexity and generous length and volume on the palate.

Qualified for the elaboration of products for direct human consumption in the field of the regulated use in Oenology.
In accordance with the regulation (EC) n° 606/2009.

SPECIFICITIES AND OENOLOGICAL PROPERTIES

Strain of the species *Torulaspora delbrueckii* resulting from *Terroir*-selection. This non-*Saccharomyces* strain brings a great aromatic purity and complexity as well as good mouthfeel. **ZYMAFLORE Alpha** TD n. Sacch is an excellent choice for making expressive and full bodied wines. Can produce up to 10% alcohol on average.

ZYMAFLORE Alpha TD n. Sacch should be used with a S.*cerevisiae* to reproduce the natural ecosystem of musts in fermentation and to ensure a complete alcoholic fermentation.

FERMENTATION CHARACTERISTICS:

- Alcohol tolerance observed: up to 10% vol.
- Medium nitrogen requirements.
- Large spectrum of fermentation temperature tolerance: 12 - 26 °C.
- Low production of volatile acidity, volatile phenols and H_2S.

AROMATIC CHARACTERISTICS:

- Pof (-) strain: does not possess cinnamate decarboxylase, which is responsible for the formation of aroma masking vinyl-phenols, when unpurified enzymes were used.
- Good revelation of thiol-type varietal aromas (3SH, 3SHA: grapefruit, tropical fruits) in association with a S.*cerevisiae*.

Observation :

- Significant volume and length on the palate.

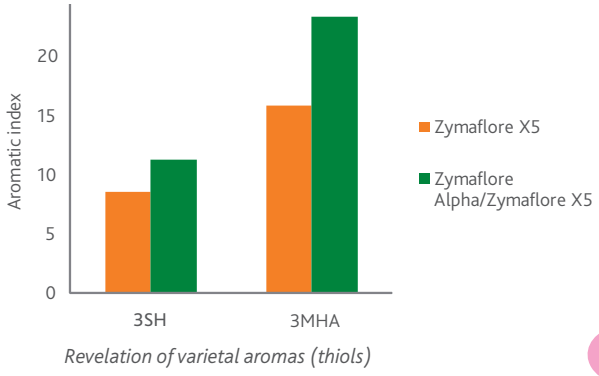
EXPERIMENTAL RESULTS

Colombard, 2009

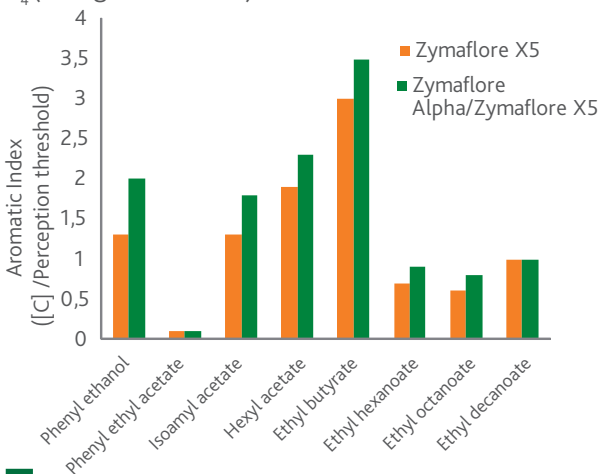
Alcohol: 12.5% vol, 100 NTU, fermentation temperature 16-20°C.

Sequential association of yeasts: 30 g/hL (300ppm) **ZYMAFLORE Alpha** TD n. Sacch/ 20 g/hL (200ppm) X5 added 24hrs afterwards.

Average fermentation: 15 days/ Average volatile acidity: 0.17 g/L H_2SO_4 (0.21 g/L acetic acid).



Revelation of varietal aromas (thiols)



Esters production

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PHYSICAL CHARACTERISTICS

Dehydrated yeast (vacuum-packed)

Aspect ..... granular

STANDARD ANALYSIS

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

PROTOCOL FOR USE

SEQUENTIAL ASSOCIATION OF YEASTS:

Important : rehydrate ZYMAFLORE Alpha [TD n. Sacch] **in water at 25-30 °C.**

- Dry wines:

Add 30 g/hL (300 ppm) of **ZYMAFLORE Alpha** [TD n. Sacch] to the must, then **24-72 hrs afterwards**, add 20 g/hL (200 ppm) of *S. cerevisiae* (**ZYMAFLORE® XPURE, ZYMAFLORE® FX10**, **ZYMAFLORE® RX60**, **ZYMAFLORE® X16**, **ZYMAFLORE® X5**...).

- Sweet wines:

Add 40 g/hL (400 ppm) of **ZYMAFLORE Alpha** [TD n. Sacch] to the must, then **5-10 hrs afterwards**, add 20 g/hL (200 ppm) of *S. cerevisiae* (**ZYMAFLORE® ST**...).

MICROBIOLOGICAL PROTECTION:

Add 5 to 10 g/hL (50 to 100 ppm) of **ZYMAFLORE Alpha** [TD n. Sacch] directly on grape or must (sound harvest): then proceed to yeasting with *S. Cerevisiae* at 20 g/hL (200 ppm) to insure alcoholic fermentation.

IMPLEMENTATION

- Carefully follow the yeast rehydration protocol indicated on the packet.
- Avoid temperature differences exceeding 10°C between the must and the yeast during inoculation. Total yeast preparation time must not exceed 45 minutes.

STORAGE

- Store in original sealed packages, in a cool dry place (4 to 8°C / 39 to 46°F), off the floor, in an odour-free environment.
- Optimal date of use: 2 years.

PACKAGING

500 g vacuum bag. 10 kg box.

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