ORIGIN AND APPLICATION

The wide variety of selected natural yeasts reflects the biodiversity, and yet this diversity is still underexploited despite the large number of species and subspecies (other than *Saccharomyces cerevisiae*) that are present in most grape musts. During spontaneous fermentation, actual microbial population dynamics result in successions of various metabolisms that undoubtedly contribute, positively or negatively, to the aromatic complexity and diversity of the wine. Thanks to Lallemand R&D research program, the management of alcoholic fermentation (AF) introducing the use of non-conventional selected yeasts in sequential inoculation with *Saccharomyces cerevisiae* opens new possibilities for winemakers.

*LAKTIA™* is a natural alternative for acidification. *LAKTIA™* is a pure culture of *Lachancea thermotolerans*, selected by Lallemand for its unique properties to produce high levels of lactic acid during fermentation. Used in sequential inoculation with most selected *Saccharomyces cerevisiae* yeast for red winemaking, Laktia™, by producing significant level of lactic acid, is a natural tool for blending and/or to re-equilibrate red wines from hot climate. Moreover than freshness and acidity, *LAKTIA™* also brings aromatic complexity from the beginning of alcoholic fermentation.

MICROBIAL AND OENOLOGICAL PROPERTIES

- Recommended for red wines
- Species: *Lachancea thermotolerans*
- Lag phase: Moderate
- Alcohol tolerance: very low (<10% v/v)
- High tolerance to high temperature
- Volatile acidity production: very low.

2017 Merlot wine tasting (south of France)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Control</th>
<th>LAKTIA™ +Control</th>
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<tbody>
<tr>
<td>Ripeness</td>
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<td>Red/black fruits</td>
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<td>Vegetal</td>
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<td>Lactic/Butter</td>
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<td>Reduction</td>
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<td>Volume and roundness</td>
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<td>Acidity/freshness</td>
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<td>Aromatic persistence</td>
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<td>Sweetness</td>
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<tr>
<td>Tannin structure</td>
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</tbody>
</table>

* significant at 10%
** significant at 5%
*** significant at 1%
**** significant at 0.1%
MICROBIAL AND OENOLOGICAL PROPERTIES (cont’d)

Acidity Impact (Tempranillo 2017):

INSTRUCTION FOR USE

TO BE USED IN SEQUENTIAL INOCULATION AS FOLLOWS

At fruit reception SO2 addition should be ≤ 4 g/hL.

1ST INOCULATION: LAKTIA™

Inoculate at 25 g/hL: rehydrate the yeast in 10 times its weight of water at 30°C. After 15 minutes, stir very gently. To help the yeast rehydrated acclimate to the cooler juice temperature and avoid cold shock, slowly combine an equal amount of juice with yeast rehydration solution (this step may need to be repeated).

Total rehydration time should not exceed 45 minutes.

2ND INOCULATION: THE SACCHAROMYCES CEREVISIAE

After 24 hours, proceed to the 2nd inoculation of the recommended selected Saccharomyces cerevisiae yeast at 25 g/hL with standard Saccharomyces cerevisiae yeast rehydration protocol (clean water, 37°C, 20 to 30 minutes).

It is recommended to use GO-FERM PROTECT™ or GO-FERM PROTECT EVOLUTION™ during the rehydration of the Saccharomyces cerevisiae.

Nutrition recommendation:

1. Add organic or complex yeast nutrient just after LAKTIA™ inoculation.
2. Add organic or complex yeast nutrient at 1/3 of alcoholic fermentation.

PACKAGING AND STORAGE

• Available only in 500 g packaging
• Store 24 months at 4°C, in original unopened packaging.

The information herein is true and accurate to the best of our knowledge; however, this data sheet is not to be considered as a guarantee, expressed or implied, or as a condition of sale of this product.