ORIGIN AND APPLICATION

**BIODIVA™** – to enhance aroma and mouthfeel complexity in white and red wines. Also used for fruit wines and cider production

**BIODIVA™** is a pure culture of *Torulaspora delbrueckii*, selected for its properties to complement wine aromatic and mouthfeel complexity. Used in sequential inoculation with a compatible selected *Saccharomyces cerevisiae* yeast studied and recommended by Lallemand, **BIODIVA™** will help control development of the wines aromatic complexity by favouring the perception of certain esters without overwhelming the wines.

Due to its low volatile acid production and its tolerance to osmotic shock, **BIODIVA™** is particularly adapted for fermenting late harvest and ice wines.

Highly recommended for for Chardonnay, Semillon and dessert style/ botrytised wines. Has also been used on Pinot Noir and Shiraz with success.

MICROBIAL AND OENOLOGICAL PROPERTIES

- **Species:** *Torulaspora delbrueckii*
- **Fermentation temperature:** >16°C (60°F). The temperature of the juice, must be greater than 16°C (60°F) at inoculation for fermentation to start.
- **Lag phase** is moderate, unless temperature of juice/must is below 16°C (60°F).
- **When used for fermenting high Brix sweet wine**, usage of Go-Ferm Protect Evolution™ is recommended to protect against osmotic shock.
- **Volatile acidity production:** very low.
- **Very good compatability with malolactic fermentation**
- **To be used in sequential inoculation with a suitably paired *Saccharomyces cerevisiae***. Refer to next page for a list of recommended *S. cerevisiae* yeasts to pair with **BIODIVA™**

INSTRUCTION FOR USE

**TO BE USED IN SEQUENTIAL INOCULATION AS FOLLOWS**

*Before inoculation, make sure that the free SO₂ level is lower than 15mg/L and the temperature of the juice /must is greater than 16°C (60°F).*
INSTRUCTION FOR USE

1st Inoculation: BIODIVA™

Inoculate at 25g/hL (2lb/1000gal): Rehydrate the yeast in 10 times its weight of water at 30°C (86°F). After 15 minutes, stir gently. To help the rehydrated yeast acclimatise to the cooler juice temperature and avoid cold shock, slowly combine an equal amount of juice with the yeast rehydration solution (this step may need to be repeated), until the yeast suspension is within 10°C (50°F) of the juice to be inoculated. Total rehydration time should not exceed 45 minutes. Allow the ferment to proceed until the Brix has reduced by approximately 4°Brix, and then over-seed with a suitably paired S. cerevisiae yeast (2nd inoculation).

2nd Inoculation: Saccharomyces cerevisiae – Refer to table below for a list of suitably paired S. cerevisiae yeast

After a density drop of approximately 4°Brix, proceed to the second inoculation with 25g/hL (2lb/1000gal) of one of the recommended S. cerevisiae yeast. Following the classical rehydration acclimatisation and handling protocol for S.cerevisiae.

COMPATIBLE SACCHAROMYCES CEREVISIAE YEASTS

The final sensory outcome of BIODIVA™ is the contribution of both the non-conventional yeast and the paired Saccharomyces cerevisiae yeast. Lallemand has extensively researched and trialled many combinations of Torulaspora delbrueckii and S. cerevisiae. We have found that there are compatible and also incompatible yeast, the definitions of which are:

**Incompatible** - Incompatible yeast have been defined as the paired S.cerevisiae yeast that do not have desirable fermentation kinetics. This could be due to numerous reasons such as amensalism, where the metabolites of one yeast are inhibitory to another, or due to competition, where both yeasts use the same substrates which can result in a mutually detrimental interaction.

**Compatible** - yeasts are defined as the paired S. cerevisiae yeasts that have desirable fermentation kinetics and desirable organoleptic outcomes.

Lallemand have investigated numerous yeasts but not all of them. Hence if you have a particular yeast you would like to use, please conduct a trail. Alternativey contact a Lallemand representative, as we may have feedback, not yet added to this list.

<table>
<thead>
<tr>
<th>Yeast</th>
<th>Suggested Varieties</th>
<th>Sensory contribution</th>
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</thead>
<tbody>
<tr>
<td>Uvaferm BDX™</td>
<td><strong>Red Varieties</strong> such as Cabernet Sauvignon, Merlot, Shiraz, Tempranillo</td>
<td>Complements varietal character, mouth-feel and contributes to colour stability.</td>
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<tr>
<td>Lalvin ICV D254™</td>
<td><strong>Red varieties</strong> and Chardonnay</td>
<td>Complements mouth-feel due to the production of polysaccharides. In Chardonnay produces nutty aromas and creamy mouth-feel.</td>
</tr>
<tr>
<td>Lalvin QA23™</td>
<td><strong>White varieties</strong> such as Chardonnay, Semillon, Pinot Gris, Vognier</td>
<td>Complements varietal characters. High terpene and thiol releaser.</td>
</tr>
<tr>
<td>Lalvin RC212™</td>
<td><strong>Pinot Noir and light red varietals</strong></td>
<td>Complements varietal character and contributes structure and spiciness to Pinot Noir wines.</td>
</tr>
<tr>
<td>Lalvin Rhone 2056®</td>
<td><strong>White and red varieties</strong></td>
<td>Complements varietal character and contributes to colour stability.</td>
</tr>
</tbody>
</table>

PACKAGING AND STORAGE

This yeast should be stored dry, below 11°C (52°F) and the vacuum packaging should remain intact.

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.