



THIRD GENERATION YEAST PROTECTOR
FOR REHYDRATION STEP



APPLICATION

Continuous R&D to improve the quality of existing products is key in the development of the best tools for winemakers to use in their wines. This philosophy has led to products being of exceptional quality. One such example of innovation and continual improvement is the **Go-Ferm®** range of Yeast protectants. **Go-Ferm Protect Evolution™** is the third generation yeast protectant in the Lallemand range.

Go-Ferm Protect Evolution™ is a product developed using the patented, hence unique, NATSTEP® process (patent WO/2006/053994, Australia 2002317228). This process optimizes the bioavailability of microprotectors and micronutrients with the addition of specific inactivated yeast enriched with quality sterols. **The oenological sterol yeast sources have been improved to provide a product with high level of quality sterols, and high levels of yeast derived micronutrients, the most superior of the range.**

Go-Ferm Protect Evolution™ provides the yeast with a high amount of sterols, vitamins and minerals. Anne Julien-Ortiz – R&D Director (yeast and nutrition) at Lallemand emphasises that YAN is not the only answer to smooth, complete and clean fermentation: 'Lipid content, vitamins and minerals such as magnesium are key co-factors to take into consideration'. The positive impact of high ergosterol on the yeast membrane transport systems allows for better aromatic precursor assimilation, very important for wines such as Sauvignon Blanc and Riesling high in thiols and terpenes.. The use of **Go-Ferm Protect Evolution™** for these wines greatly enhances their aromatic complexity.



NATSTEP® (NATural STERol Protection): yeast protection is used during the yeast rehydration step to reinforce the yeast membrane and help protect against osmotic shock.

NATSTEP® yeast protection also improves the yeast's alcohol tolerance, allowing a more predictable fermentation finish without sensory problems.

NATSTEP® is patented (Europe 1395649, Australia 2002317228).

Go-Ferm Protect Evolution™ optimises the aromatic potential and secures fermentation by:

- Increasing yeast vitality and viability due to ergosterols and yeast vitamin sources (Chart 1)
- Increasing the alcohol tolerance of yeast by the fortification of the membrane with a high level of quality sterols and polyunsaturated fatty acids.
- Thanks to higher sterol concentrations and the improvement in bioavailability to the yeast membrane, **Go-Ferm Protect Evolution™** improves yeast aroma precursor assimilation, allowing better aromatic compound release (Chart 2)
- Significant impact on fermentation kinetics especially under challenging conditions (Chart 3)
- Allows fermentation kinetics to be similar as when oxygen is added. **Go-Ferm Protect Evolution™** can replace O₂ additions in white and rosé winemaking protocols.

Chart 1

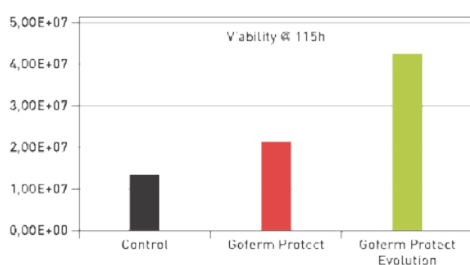
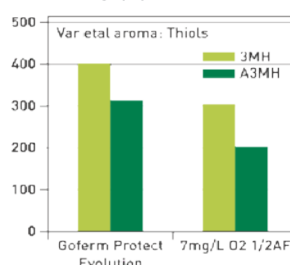


Chart 2



PACKAGING AND STORAGE

- **GO-FERM® PROTECT evolution** is a powder available in a 1 kg and 10 kg packs.
- When stored at 20°C or lower temperature in sealed packs, **GO-FERM® PROTECT evolution** maintains its effectiveness for at least 4 years.
- Avoid moisture and high temperature exposure.

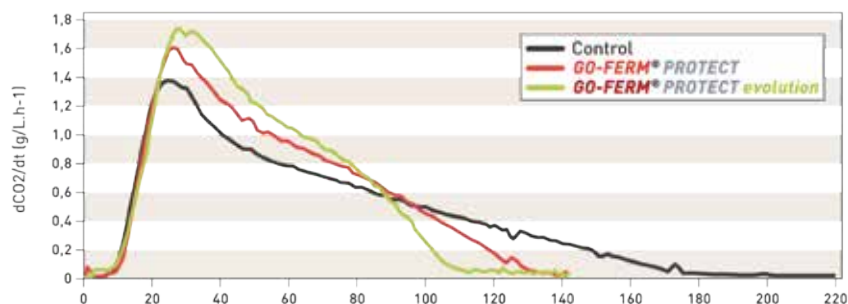


CHART 3.

Go-Ferm Protect Evolution™ impacts on fermentation kinetic: QA23 (25g/ hL) with yeast protector addition (30g/ hL) during rehydration in high clarified synthetic must.

Lallemand highly recommends the use of **Go-Ferm Protect Evolution™** in the following conditions:

- Extreme high baume (high potential alcohol) must.
- Highly clarified juices
- The production of aromatic whites where the expression of thiols is sought.
- Wines that are notoriously / historically difficult to ferment.
- **Go-Ferm Protect Evolution™** is OMRI listed. For market specific organic compliance, please contact your organic certifier.

FURTHER READING

'The Australian and New Zealand Grapegrower Winemaker' September 2014 edition that outlines the role of sterols, vitamins and minerals in fermentation titled – "Mastering Alcoholic Fermentation – The role of sterols and nutrients".

INSTRUCTIONS FOR USE

Recommended dosage is 30g/hL of must volume (the recommended dosage of yeast is 25g/hL). If using a higher or lower dose rate of yeast, respect a ratio of 1 part yeast: 1.25 parts **Go-Ferm Protect Evolution™**.

Add **Go-Ferm Protect Evolution™** directly to the rehydration water for your selected yeast. Allow the GPE to be well suspended with no lumps before the addition of the dried yeast. Given the high level of sterols (which are hydrophobic) this product can be difficult to dissolve. Often allowing the suspension to stand for 10 minutes prior to re-mixing will help with its dispersion.



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.