

FERMAID OTM

Organic yeast nutrient

DESCRIPTION ⊶

FERMAID O[™] is a nutrient resulting from Lallemand's research on nitrogen metabolism during fermentation.

FERMAID O^{TM} is a unique yeast autolysate with a high content of free amino-acids and peptides, selected by Lallemand. It contains 100% of organic nitrogen and therefore does not contain any ammonia salts (DAP or SDA).

FERMAID O[™] supplies well balanced nutrients for yeasts:

- highly available amino-acids and peptides. Amino-acids are more efficiently used by yeast than inorganic nitrogen.
- natural sources of survival factors to help yeast in stressed conditions.
- natural sources of micronutrients such as as vitamins (thiamine, biotine, panthotenic acid...) and oligoelements (magnesium, manganese, zinc...).

FERMAID O[™] enhances ripe fruit character and volume while decreasing dryness sensation.

With FERMAID O[™], nitrogen is assimilated more steadily than mineral nitrogen preventing fermentation activity peak while limiting temperature peaks.

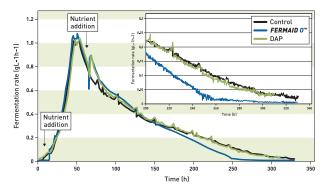


Figure 1: Addition of 16 mg/L of YAN at 2 stages of fermentation (at the beginning and at 1/3 of the alcoholic fermentation -AF-) in 2 different forms: inorganic nitrogen (DAP) and organic nitrogen (FERMAID O[™]).

On the figure 1, it is shown that for an equivalent amount of assimilable nitrogen added, the addition of organic nitrogen is efficient on the fermentative kinetics. Indeed, in a must with high nitrogen deficiency, it allows to consume all sugars whereas the same amount of YAN provided in the form of inorganic nitrogen does not allow to complete the fermentation. No difference can be noted between the control fermentation (no nutrient added) and the fermentation with added DAP addition. In those two cases, a stuck fermentation is observed.





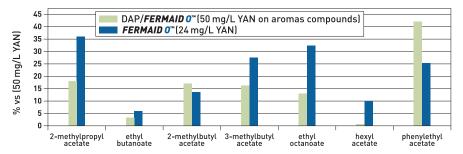


Figure 2: Effect of inorganic/organic nutrition on a Chardonnay fermented at 16°C (AWRI). DAP at 50 mg/L YAN on aromas compounds production.

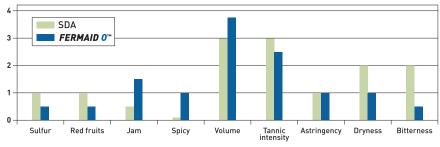


Figure 3: Effect of FERMAID O[™] on the sensory profile of a Syrah (ICV R&D Dpt).

	YAN (Yeast Assimilable Nitrogen)	
	30 g/hL added product	40 g/hL added product
FERMAID O [™] YAN	12 mg/L	16 mg/L
FERMAID O [™] YAN equivalent	36 mg/L	48 mg/L
DAP (YAN)	63 mg/L	84 mg/L

YAN vs YAN Equivalent

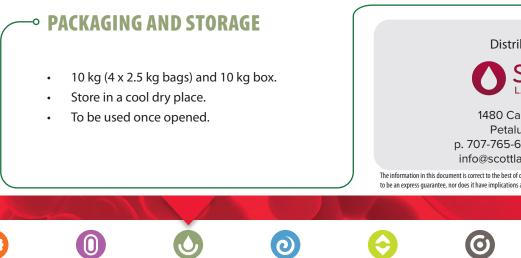
Lallemand Oenology in collaboration with different Institutes have done several studies to show the importance of the source of yeast assimilable nitrogen and its impact on fermentation performance. Those studies have demonstrated that the "organic" YAN supported by specific yeast autolysates is 3 times more efficient than inorganic YAN (mainly DAP). Hence, a 40 g/HI dose of FERMAID OTM has a YAN equivalent (to inorganic YAN) of 48 mg/l.

Recommended dosage: 2x20g/hL

– 20 g/hL at the beginning of AF

– 20 g/hL at 1/4 to 1/3 of AF

Suspend in 10 times its weight of water or must and add to the must during alcoholic fermentation.



LALLEMAND

Original **by culture**

Visionary biological solutions - Being original is key to your success. At Lallemand Oenology, we apply our passion for innovation, maximize our skill in production and share our expertise, to select and develop natural microbiological solutions. Dedicated to the individuality of your wine, we support your originality, we cultivate our own.

SPECIFIC YEAST DERIVATIVES **ENZYMES**

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OMRI (Organic ^{For} Organic Use Materials Review Institute) is a US national nonprofit organization that determines which input products are allowed for use in organic production and processing.

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