DISTILAMAX® DS

Yeast selected for continuous process fermentation for the production of Vodka and neutral grain alcohol

Technical Data Sheet

APPLICATIONS:

- DistilaMax® DS has been selected especially for a rapid fermentation start and strong stress tolerance; a rapid start helps keep bacterial contaminants in check.
- DistilaMax DS has an increased tolerance to high mash gravity, low pH, high alcohol content and high acidity which helps to ensure optimal alcohol by enabling fermentation to finish, even in adverse conditions.
- DistilaMax DS is well-suited to fermenting a broad range of mash styles and produces a congener profile that
 is able to benefit spirits such as vodka and neutral grain alcohol.

RESULTS WITH DISTILAMAX DS:

During fermentation, stresses can affect the yeast and impact the final ethanol content.

Among the stresses, the pH is one of the most important. Figure 1 demonstrates that DistilaMax DS is not significantly impacted by the pH; the final ethanol content is similar at the end of fermentation no matter the pH.

In the production of vodka and neutral spirits, one of the main targets is to achieve low levels of congeners in order to produce a distilled spirit as neutral as possible. DistilaMax DS allows producers to obtain low levels of congeners in beer therefore making it is easier to achieve a low level in the final product. Figure 2 demonstrates the sum and distribution of congeners obtained with DistilaMax DS in comparison with other yeasts, resulting in DistilaMax DS producing congeners in lower concentration.

Impact of the pH on final ethanol content

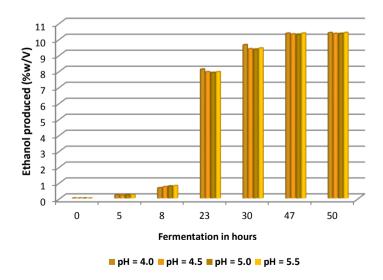


Figure 1: Internal lab trial on corn, LBDS, 2017.

Sum and distribution of congeners in fermented beer, recalculated for absolute alcohol

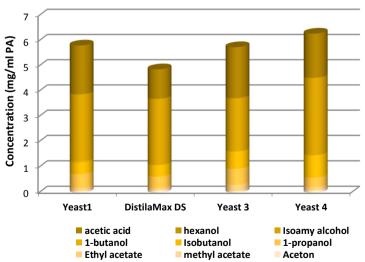


Figure 2: Lab trial in distillery on wheat, 2016.



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CHARACTERISTICS:

Solids (Dry Weight): 95.5 +/-2.5%
 Viable Cells (CFU/g): >1x10e10
 Total Wild Yeast (CFU/g): <1000

DistilaMax DS is not genetically modified and is Kosher.

DOSAGE:

- The optimal yeast dosage is variable according to individual distillery production processes.
- Fermentation of grain mash: 0.40 1.0 grams per litre of wort or beer (dosage: 400 1000 ppm).

INSTRUCTIONS OF USE:

Lallemand Biofuels & Distilled Spirits recommends the rehydration of DistilaMax DS.

- 1. For rehydration, use a clean container. Do not use demineralized water.
- 2. Rehydrate the yeast in clean water (the water should be 10 times the weight of the yeast and at a temperate of 32°C 36°C).
- 3. Suspend contents carefully by gently stirring and then wait for 15 20 minutes maximum (minimum 10 minutes) before moving onto the next step.
- **4.** Add this preparation to the wash. If there is a temperature difference of more than 8°C between the wash to be inoculated and the rehydration solution, add some wash slowly into the rehydration solution to reduce the temperature difference.
- 5. Once the vacuum-sealed bag is open or broken, use yeast promptly.

0.40 - 1.0 g/L Potable Water 32°C - 36°C

STORAGE, HANDLING & PACKAGING:

- DistilaMax DS should be stored in a cool and dry area away from heat and direct sunlight for maximum stability.
- Shelf Life: 3 years from date of manufacture if vacuum-seal is not broken.
- Packaging: DistilaMax DS is available in vacuum-sealed foil bags in boxes of 20 x 500 grams.

To the best of our knowledge, the information contained here is true and accurate.

However, any recommendations or suggestions are made without any warranty or guarantee since conditions and methods of use are beyond our control. This information should not be considered as a recommendation that our products be used in violation of any patents.





