



TECHNICAL GUIDELINES

SafBrew™ LA-01

211215-TG-LA-01 -V1.5
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CHARACTERISTICS OF THE PRODUCT

SafBrew™ LA-01, is a *Saccharomyces cerevisiae* var. *chevalieri* that has been specifically selected to produce low and/or non-alcoholic beverages (<0.5ABV).

This yeast does not assimilate maltose and maltotriose but assimilates simple sugars (glucose, fructose, and sucrose) and is characterized by a subtle aroma profile.

BEER STYLE

Low and/or non-alcoholic beers.

This strain is POF+ and will slightly express phenols (4-VG and 4-VP) from raw materials rich in ferulic acid and p-coumaric acid (such as wheat).

GRAVITY

The ethanol produced by SafBrew™ LA-01 is directly correlated with the original gravity of the wort, and more specifically the quantity of monosaccharides (DP1).

When tested at our RGD, original gravities of 6°P, 8°P, 10°P and 15°P have been tested and finished with an ADF (apparent degree of fermentation) of around 13-14% with a standard mash regime of 50min @ 65°C and 10min @ 73°C.

It is possible to estimate the final ethanol produced by SafBrew™ LA-01 by using the following formula:

$$\%ABV = (0.0862 * OG) - 0.1208$$

As an example, an OG of 7.2°P should give around 0.5% ABV after fermentation.

The exact value depends on your raw materials and mashing regime resulting in the quantity of monosaccharides available for the yeast.

For a target of 0.5% ABV, we advise to use an OG between 6.5 and 7.5°P.

MALT BILL

The use of malts that are rich in ferulic acid and coumaric acid (wheat) with a rest at 40-50°C (104-113°F) during brewing operation, will promote the production of 4-VG and 4VP (phenols) by the SafBrew™ LA-01.



TEMPERATURE

SafBrew™ LA-01 is ideally used between 15°C and 25°C (59 – 77°F).

For a quick fermentation we recommend the higher end of this range.

As soon as your ADF is reached, the beer must be cold crashed and put to maturation. Typical fermentation time is around 40 to 48h. The beer must be kept cool until pasteurization. Any cross-contaminant could otherwise take over and ferment the remaining sugars.

Diacetyl rest should be avoided and is not necessary with this low diacetyl producing strain.

PITCH RATE

50-80 g/hl in primary fermentation (0.06 to 0.10 oz/gal).

Direct Pitching: Pitch the yeast directly in the fermentation vessel on the surface of the wort at or above the fermentation temperature. Progressively sprinkle the dry yeast into the wort ensuring the yeast covers all the surface of wort available to avoid clumps. Ideally, the yeast will be added during the first part of the filling of the vessel; in which case hydration can be done at wort temperature higher than fermentation temperature, the fermenter being then filled with wort at lower temperature to bring the entire wort temperature at fermentation temperature.

Rehydration: Alternatively, sprinkle the yeast in minimum 10 times its weight of sterile water or boiled and hopped wort at 25 to 29°C (77°F to 84°F). Leave to rest 15 to 30 minutes, gently stir and pitch the resultant cream into the fermentation vessel.

Aeration: it is not necessary to aerate the wort before pitching the yeast.

Dry Hopping is not recommended at fermentation T° or T° higher than 4-5°C to avoid hop creep effect, which will conduct to a higher concentration in glucose that will ferment in presence of Yeast. It is highly recommended to add hops at a later stage, after the beer is cold crashed.

This yeast is not suitable for cropping and repitching. Any *S. cerevisiae* or *S. pastorianus* (cross-contaminant from the brewery) that would enter the slurry would have a growing advantage over the *S. cerevisiae* var. *chevalieri* as the latter cannot ferment maltose.

POINTS OF ATTENTION

Point of attention for ADF: the expected ADF is between 13 and 17%. It is strongly recommended to cold crash as soon as your ADF is in this range. Any cross-contaminant could otherwise take over and ferment the remaining sugars.

Point of attention for packaging: due to the residual sugars left in the beer, it is mandatory to pasteurize the beer after packaging to at least 80-120 PU in order to avoid any risk of refermentation. Flash pasteurization is not satisfactory for stabilizing the beer, due to a possible presence of living microorganisms in later process steps.

Point of attention for pH: the acidification or pH drop during fermentation will be around pH 4.5. If necessary, the pH can be adjusted after the boil.

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Similarly, SafBrew™ LA-01 **should not be used for propagation** as any *S. cerevisiae* or *S. pastorianus* would have access to the maltose and maltotriose and propagate.



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION