



TECHNICAL GUIDELINES

SafBrew™ LA-01

211215-TG-LA-01 -V3
Nov25

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 nor maltotriose. It only assimilates simple sugars (glucose, fructose and sucrose) and is characterized by a subtle aroma profile

BEER STYLE

Low- and/or no-alcohol beers.

This strain is POF+ and will express subtle phenolic attributes (such as the production of 4-VG and 4-VP compounds) from raw materials, especially ones rich in ferulic acid and p-Coumaric acid (such as wheat).

High mashing temperature (78°C / 172°F) allows brewers to significantly decrease this phenolic character.

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 R&D facilities, original gravities of 6°P, 8°P, 10°P and 15°P all finished with an ADF (apparent degree of fermentation) of around 13-14% with a standard mash regime of 40 mins at 65°C and 25 mins at 73°C.

It is possible to estimate the final ethanol content 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 ABV value will depend 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.



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION

TEMPERATURE

SafBrew™ LA-01 is recommended between 15°C and 25°C (59 – 77°F), and ideally around 20°C (68°F). For a quick fermentation, we recommend the higher end of this range.

As soon as your ADF is reached, the beer should be cold crashed and transferred to maturation. Typical fermentation time is around 48 hours (with a fermentation temperature of around 20°C). The beer must be kept cool until pasteurization. Any cross-contaminant could otherwise take over and ferment the residual 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 into the fermentation vessel over the surface of the wort at or above the fermentation temperature. Progressively sprinkle the dry yeast into the wort, ensuring it covers the entire surface to avoid clumps. Ideally, the yeast should be added during the first part of filling the fermentation vessel. In this case, hydration can be done at wort temperature higher than fermentation temperature, provided the fermenter is then filled with wort at a lower temperature to bring the entire wort temperature down to the recommended fermentation temperature.

Rehydration: Alternatively, sprinkle the yeast in minimum of 10 times its weight of sterile or boiled water or hopped wort at 25°C to 29°C (77°F to 84°F). Leave to rest for 15 to 30 minutes, then gently stir and pitch the 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 dry hop only after the beer is cold crashed.

POINTS 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.
- **For beer 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.
- **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.
- **This yeast is not suitable for cropping and/or 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.
- Similarly, SafBrew™ LA-01 **should not be used for propagation** as any contaminant (even *S. cerevisiae* or *S. pastorianus*) would have access to the maltose/maltotriose and dominate the propagation media.



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION