

# SafSour<sup>™</sup> Barrel Instinct

# A UNIQUE DRY FERMENTATION SOLUTION FOR COMPLEX SOUR WOODY/WINEY BEERS

SafSour<sup>™</sup> Barrel Instinct is the perfect solution (made of Active Dry Yeast + Enzyme + Bacteria) to produce flavorful mixed fermentation sour beers.

When used for fermentation in wooden barrels, **SafSour™ Barrel Instinct** delivers fermentative and wood-related flavor complexity along with balanced acidity, notable dryness, and a rich fruity expression. Aromatic profile will change over time, with typical *Brettanomyces* and other microbial-derived flavors, along with deep woody notes, that may evolve over three to six months of maturation. Most likely, when used in other conditions, e.g. in stainless steel vessels, flavor profile delivered might vary and exhibit different flavorful fruity notes.

Time tends to mellow and shift its overall print and fermentation flavor nuances. Barrel and wood types may drive flavor diversification.

SafSour™ Barrel Instinct is mainly designed for primary fermentation only. In case of refermentation, it should not be used for bottle or stainless steel kegs conditionning.

# **Ingredients:**

Yeast (*Saccharomyces cerevisiae*, *Brettanomyces bruxellensis*), Emulsifier: sorbitan monostearate (E/INS 491), Bacteria (*Lactiplantibacillus plantarum*, *Levilactobacillus brevis*, *Pediococcus acidilactici*), maltodextrin, Glucoamylase from *Aspergillus niger* (EC 3.2.1.3).

Acidity	Phenol	Madeira / Porto notes	Fruitiness	Barrel, stainless steel vessels:
Mild	Very low	High	High	fermentation & ageing

# **Experimental conditions:**

This product was tested in pilot trials using different matrixes, including aged and non-aged hops and with wooden barrel maturation. Sensory tests were conducted during 12 months of maturation. Beer flavor was dependent on barrel and matrix as well as maturation time.

Given the impact of yeast on the quality of the final beer, we recommend adhering to the prescribed fermentation instructions. We strongly advise users to make fermentation trials before any commercial usage of our products.

# **Fermentation temperature:**

Optimum: 15 – 25°C (59 - 77°F)

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### Dosage instruction: 110g / hL i.e. 0,15 oz/gal

# **Pitching**:

Lesaffre know-how and continuous yeast production process improvement generates an exceptional quality of dry yeasts able to resist to a very wide range of uses, incl. cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile. Brewers can choose usage conditions that fit the best their needs, i.e.:

#### • Direct Pitching

Pitch the mix directly in the fermentation vessel on the surface of the wort at the fermentation temperature. Progressively sprinkle the dry mix into the wort ensuring the mix covers the entire surface of the wort, avoiding clumps. Ideally, the mix will be added during the first part of the filling of the vessel; in which case hydration can be done at fermentation temperature. Then fill the fermentation vessel with the rest of the wort.

#### Rehydration

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

#### **Usage:**

SafSour™ Barrel Instinct is a complete solution for either:

- Primary fermentation in wooden barrel or stainless-steel vessel
- Secondary fermentation or ageing in wooden barrel or in stainless steel vessel.

For the primary fermentation, **SafSour™ Barrel Instinct** is simply inoculated at the beginning of fermentation, just after cooling the wort at fermentation temperature. Cooling down the wort can be done with a heat exchanger, coolship, or other device.

When used during secondary fermentation or aging, **SafSour™ Barrel Instinct** can be added after partial or complete fermentation, preferably at barrel aging temperature. The main fermentation can be performed with any Fermentis yeast strains including diastaticus, maltotriose negative, and POF positive strain. In any case, aging will produce carbon dioxide and ethanol; an airlock should be used with wooden barrels.

**SafSour™ Barrel Instinct** bacteria expression will depend on the type of hop used. Aged hops and hop extract exempt of bitter compound will allow the bacteria expression. Bitter or aromatic hop used in the brewhouse will repress bacteria expression. Dry hopping or other hop product may be used after the beer aging process.

Beers made with **SafSour™ Barrel Instinct** may be force carbonated or bottled conditioned if the extract/gravity has been stable for a few weeks. SafAle™ F-2 is recommended for bottle conditioning.

Do not use **SafSour™ Barrel Instinct** in the following cases:

- Bottle conditioning when the main fermentation or aging was not performed by SafSour™ Barrel Instinct
- Keg conditioning when the main fermentation or aging was not performed by SafSour™ Barrel Instinct

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# **Typical analysis:**

- Dry matter > 93%
- Viable Saccharomyces cerevisiae cells: > 1.0\*10<sup>9</sup> cfu/g
- Viable Brettanomyces bruxellensis cells: > 1.0\*10<sup>8</sup> cfu/g
- Total Viable Bacteria: > 5.0\*10<sup>9</sup> cfu/g
- Acetic bacteria: < 1000 cfu/g</li>
- Coliform: < 100 cfu/ g</li>
- Mold: < 100 cfu/ g</li>
- "Wild" Yeast<sup>1</sup> < 1000 cfu/g</li>
- <sup>1</sup>Other than Saccharomyces/Brettanomyces
- Pathogenic micro-organisms: in accordance with regulation

# Storage:

The product must be stored in dry conditions and protected from direct heat sources (e.g. sunlight...). When storing for 6 months or less: the product must be stored at a temperature below 10°C (50.0°F). When storing for more than 6 months: storage must be done under cool temperature < 4°C (39.2°F) and in dry conditions.

For a short period of time not exceeding 7 days, ambient temperature can be observed.

Suitable for freezing, do not immerse in water for defrosting.

# **Transportation:**

The product must be transported in dry conditions and protected from direct heat sources (e.g. sunlight...). Product may be transported at ambient temperatures, ideally not more than 30°C (86.0°F) for maximum 7 days. For prolonged periods of time, exceeding 7 days, the product should be transported at temperature below 10°C (50.0°F).

# **Shelf life:**

24 months from production date. Refer to best before end date printed on the sachet. Opened sachets must be sealed and stored at 4°C (39.2°F) and used within 7 days of opening. Do not use damaged sachets.