



Naturland

NATURLAND STANDARDS

PROCESSING

Supplement for breweries

Version 05/2022

VII. Processing standards for breweries

The processing standards for breweries are supplementary to the Naturland standards "Processing - General Section", including the appendices.

These are likewise binding on all processing standards for specific groups of products and consequently must be observed in processing brewery products.

1. Area of application

The sole area of application of these standards is beer. It is assumed that the German Purity Law is complied with. As a variant, an application can be made to Naturland to use other cereals and other processing methods e. g. to manufacture gluten-free beers.

2. Ingredients of agricultural and non-agricultural origin

All ingredients of agricultural origin that are selected following the list of priorities, Naturland's standards (see Part C. VI. 4.1) are permitted.

Besides this, the following regulations apply:

2.1 Hops

According to the list of priorities, hops are permissible in the form of whole hops or pellet hops (type 45 or type 90).

Hop extracts and other hop products are prohibited.

2.2 Malt

Malt and roasted malt as per the list of priorities are permissible.

2.3 Water

2.3.1 Brewing and malt water

- Breweries producing to Naturland standards should have their own water supply (spring water).
- The water has to fulfil the requirements for drinking water, and – in certain cases after permissible treatment – be low in nitrate (maximum 25 mg/l) and comply with the orientation values for loading substances in natural mineral waters (annex 1a of the "Allgemeinen Verwaltungsvorschrift über die Anerkennung und Nutzungsgenehmigung von natürlichem Mineralwasser" – the German general administrative directive on the recognition and authorisation to use natural mineral water).
- During organic inspection, a current water analysis (no older than 12 months) certifying conformity with requirements is to be produced. If the values are acceptable, the requirement to produce subsequent analyses can be changed to greater intervals upon application to Naturland.
- permissible methods of treatment: filtration methods without chemical conversion, UV radiation, filtration using activated carbon, reverse osmosis, sand filtering to remove iron and manganese and the use of lime milk, where required in combination with gypsum.
- prohibited methods of treatment of brewing and malt water: ozone, chlorine, chlorine dioxide, hydrogen peroxide, demineralisation (anion exchange).

2.3.2 Industrial water and water used for cleaning

- Permissible methods are those listed under 1.3.1. In exceptional cases an application may be made to use other treatment methods where justified.

2.4 Cultures of micro-organisms

- Brewer's yeast without additives, and lactobacilli, must be produced in the brewery's own facility for the cultivation of pure cultures on organic wort made from the brewery's own organic raw materials. Preference is to be given to the brewery's own facility for such cultivation over purchase from other organic breweries.
- The use of guaranteed non-GMO brewer's yeasts and lactobacilli from conventional breweries can only be approved in exceptional cases. Where required, an application must be sent to Naturland given details of the reasons.

2.5 Additives

As per the regulations of the German Purity Law, the use of flavouring, enzymes, food additives, mineral nutrients, trace elements and vitamins is not permitted.

2.6 Permissible processing additives

- asbestos-free filters such as siliceous filters (testing for heavy metals in the diatomaceous earth is obligatory), cotton filters (testing for pesticide residues is obligatory), cellulose and perlite as well as PVC-free membranes for filtering purposes
- brewery's own fermentation carbonic acid
- natural carbonic acid from spring water
- biogenic carbonic acid
- nitrogen (N₂) (E 941)

2.7 Prohibited processing additives

- technical carbonic acid
- polyvinylpyrrolidone (PVPP)

3. Permissible processing methods

- Drying the whole hops may only be done indirectly.
- Flash pasteurisation of beer followed by rapid re-cooling
- Full pasteurisation only for non-alcoholic beer, light beer, mixed beer beverages, malt beer and malt-based soft drinks

4. Prohibited processing methods

- sulphuring of hops and malt
- kiln drying with direct heat
- recycling spent hops, pressed yeast beer and return beer and the artificial acceleration of the wort production
- Fermentation is to be done by traditional means, i. e. cold fermentation and storage of bottom-fermented beers, warm fermentation because of the yeast in top-fermented beers. Rapid fermentation processes such as heat fermentation (over 12°C), pressure fermentation, stir fermentation and the Nathan process, also such rapid fermentation processes as storage at high temperatures.
- processes designed to reduce the alcohol content artificially and to manipulate the taste
- fining using "Farbebier" (a special colour preparation) or roasted malt extract
- measuring the depth of the beer radioactively¹
- clarification substances (e. g. wood shavings, aluminium foil)
- sterilisation

5. Quality assurance

Malt lots are to be submitted to spot checks for mycotoxins (where appropriate, by the supplier).

Hops are to be submitted to spot checks for possible contamination with copper or pesticides (where appropriate, by the supplier).

¹ In the case of swing-top bottles, it is possible to measure the filling level using X-rays upon submission of an application to do so.

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