



BETA RICH HOP EXTRACT (BRHE)

OVERVIEW

BRHE is a fraction of hop extract, which predominantly contains the hop beta acid. After extracting the natural hops with supercritical carbon dioxide, the beta acids are separated from the extract and dissolved in food-grade propylene glycol.

BRHE with its content of beta acids and essential hop oils, has aromatic properties and can be dosed as a (hop) flavouring.

SPECIFICATIONS

Short description	beta acid fraction of hops, obtained by CO ₂ extraction, dissolved in propylene glycol
Iso-alpha acids	< 1.5 %
Beta acids	40.0 ± 1.5 % (w/w) HPLC
Hop oils	1.5 ± 0.5 % (w/w) HPLC
Moisture content	< 8 %
Propylene glycol	20 ± 15 %
Density	ca. 1.0 g/ml (20 °C / 68 °F)
Viscosity	300 - 1000 mPas (20 °C / 68 °F)

PROPERTIES

APPEARANCE

Dark brown, viscous liquid at room temperature, becoming more liquid when heated. Remains fluid even at 0 °C.

FLAVOR

BRHE leads to a non-iso-alpha acid bitterness and intensifies the typical hop character of a product. Small residual amounts of iso-alpha and alpha acids also contribute to the bitterness of the product.

QUALITY

All Hopsteiner® products are processed in facilities which fulfill internationally recognized quality standards. A monitoring system for residues is in place.

PACKAGING

Our products are delivered in their respective recommended standard packaging. Alternatives may be possible upon customer request.

Standard packages of our processing plants in the USA (US) and Germany (DE) are:

- Canister 20 kg (US / DE)
- IBC container 640 - 1000 kg (US / DE)

USAGE

We recommend that BRHE is always used in its undiluted form. It is not difficult to pump and is compatible with the usual materials used in food processing plants.

DOSAGE

Actual dosage will depend on the application and the substrate. Typically, BRHE has flavouring properties already at low ppm concentrations.

APPLICATION

BRHE may be dosed directly into process streams or added to solid or semi-solid products in a suitable blender. When dosing into pipelines or vessels it is best to ensure that there is vigorous mixing to disperse the product quickly. E.g. this can be achieved by injecting into the bulk fluid at high pressure through a suitable nozzle or small-bore pipe so that a high degree of turbulence is generated.

STORAGE

The recommended storage temperature in the original unopened packaging is 5 - 15 °C (41 - 59 °F)

Bulk storage in heated tanks (up to 40 °C) is also possible, provided the product is not directly exposed to air and used within about 3 months.

BEST BEFORE DATE

Under the recommended storage conditions, the shelf life from the date of production/ packaging is at least 6 years.

SAFETY

Ensure good ventilation of the workplace and wear personal protective equipment. Avoid contact with eyes and skin. Do not inhale vapors or dusts. For full safety information, please refer to the relevant Hopsteiner® safety data sheet.

ANALYTICAL METHODS

International approved methods listed in committees such as ASBC or Analytica-EBC using current standards are applied.

PRODUCT ANALYTICS

Concentration of bitter substances

- Analytica-EBC 7.8 (HPLC)
- ASBC Hops-14 (HPLC)

TECHNICAL SUPPORT

We are pleased to offer assistance and advice on:

- safety data sheets
- support for brewing trials on a pilot or commercial scale
- analytical services and information about analytical procedures

Disclaimer: The information provided in this document is believed to be correct and valid. However, Hopsteiner® does not guarantee that the information provided here is complete or accurate and thus assumes no liability for any consequences resulting from its application.

ADDITIONAL INFORMATION

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Beta acids are natural, major constituents of hops and are present in amounts ranging from about 2 - 12 % according to variety. They are soluble in organic solvents and are readily extracted by liquid or supercritical carbon dioxide. CO₂ extracts produced commercially for use in brewing typically contain from 12 - 35 % beta acids, of which there are three major homologs - colupulone, lupulone and adlupulone.

Propylene glycol (1,2-propanediol) is regarded as a very safe material and is widely used as a carrier for food ingredients. It is permitted for use in foodstuffs at levels not to exceed regulatory limits. At high concentrations it has a sweet taste.

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