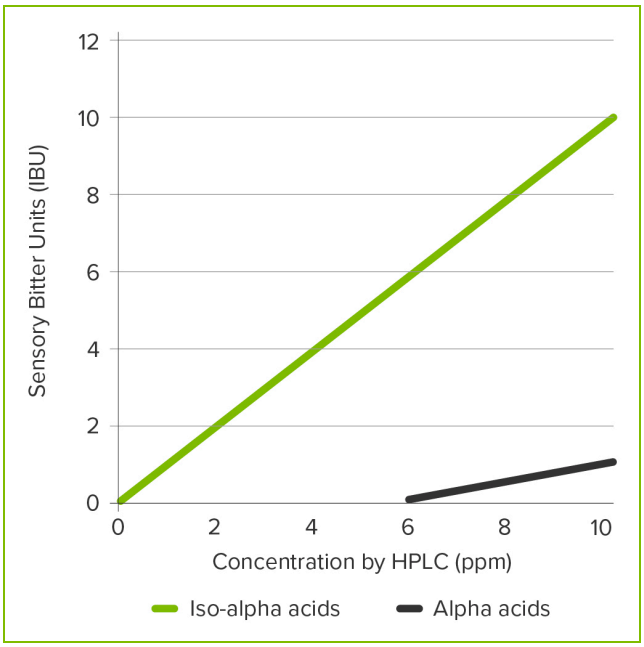
ALPHAEXTRACT

OVERVIEW

AlphaExtract is a pure, aqueous solution of natural alpha acids in the form of potassium salts, derived from CO_2 hop extract.

AlphaExtract imparts a smooth bitterness to beer with a bitterness only 10 % of that of iso-alpha acids.

AlphaExtract also improves the stability and cling of beer foam.



SPECIFICATIONS

Short description	aqueous hop extract to impart a smooth bitterness and foam retention
Alpha acids	20.0 ± 1.0 % (w/w) HPLC
pH	8.5 ± 0.5
Density	ca. 1.05 g / ml (20°C)
Viscosity	6 mPas (20° C / 68° F)

PROPERTIES

APPEARANCE
Yellow to amber in color, homogeneous, aqueous solution.

FLAVOR
AlphaExtract provides a smooth (sensory) bitterness at a dosing rate of 7 - 8 mg/l, depending on the type of beer. However, this will lead to an increase in the analytical bitterness value. The perceived bitterness of AlphaExtract is smoother than that of pure iso-alpha acids.

UTILIZATION
Utilization of alpha acids in the finished beer can vary between 60 - 70 % (based on HPLC analysis) depending on the time and efficiency of dosing, the quantity of adjuncts (if any) and the bitterness level. Actual utilization will vary from brewery to brewery due to differences in equipment and process conditions.

FOAM STABILITY
AlphaExtract enhances both beer foam retention and cling. An improvement is already noticeable at 3 - 4 mg/l alpha acids in the finished beer.

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)
- Jug 10 kg (US)
- Pail 20 kg (US)

USAGE

AlphaExtract is typically added before the final step in filtration.

DOSAGE
Dosage of AlphaExtract is based on the product concentration, the desired dosing rate and the expected utilization. Actual utilization will vary from brewery to brewery depending on the time and point of the addition.

APPLICATION
We recommend adding AlphaExtract at full strength (undiluted) into the center of the beer stream for at least 70 % of the total volume being transferred, preferably prior to the final step in filtration. An accurate, high pressure dosing pump is required to add the product into the beer stream at a point where vigorous mixing is assured. If dilution is necessary, always add AlphaExtract to demineralized water and adjust the pH to 8.5 - 9.5 using potassium hydroxide (KOH) or potassium carbonate (K_2CO_3). If containers are used over several days, it is highly recommended that the headspace be flushed with nitrogen (CO_2 is not suitable).

CLEANING RECOMMENDATION
AlphaExtract should not be left in dosing lines at low temperatures. Lines and dosing pumps should be flushed with warm, slightly alkaline, demineralized water or ethanol for purposes of cleaning.

STORAGE
The recommended storage temperature in the original unopened packaging is 1 - 5 °C (34 - 41 °F).
Avoid exposure to sunlight.

BEST BEFORE DATE

Under the recommended storage conditions, the shelf life from the date of production/ packaging is at least 1 year.

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 commitees such as ASBC or Analytica-EBC using current standards are applied.

PRODUCT ANALYTICS

Concentration of bitter substances

- Analytica-EBC 7.7 (HPLC)
- ASBC Hops-14 (HPLC)

BEER ANALYTICS

Concentration of alpha acids in beer

- Analytica-EBC 9.50 (HPLC)

The standard formula for calculating bitter units in beer (Analytica-EBC 9.8 or ASBC Beer-23A) may need to be adjusted as it results in too low values when using higher amounts of AlphaExtract.

Foam stability and Cling test

- NIBEM Cling
- NIBEM-T Meter
- Pour Test
- Ross & Clark
- Steinfurth Foam Stability Tester

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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- Usage in combination
  If AlphaExtract is to be used in combination with Iso-Extract 30%, both products can be blended according to customer specifications (resulting in a mixture of alpha and iso-alpha acids).
  If AlphaExtract and Tetra are used in combination, AlphaExtract must be added to the beer before Tetra.
- Stability of Alpha acids in beer
  It is not unusual to detect a certain decrease of alpha acids over the normal shelf life of beer. Nevertheless, this has been known to have no effect on the stability and cling of beer foam.
- Light stability of alpha acids
  It is not recommended that AlphaExtract be used for the production of light stable beers.

PATENT

AlphaExtract is covered by US Patent 9,796,955.

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