









Aromahop® OE provides the brewer with an economical means to deliver light-stable, variety non-specific, hop aroma to beer. It is processed by the removal of the  $\alpha$ -acids and most of the  $\beta$ -acids from CO<sub>2</sub> hop extract, resulting in an easy-to-use hop extract that adds hop aroma to beers.

#### **C**HARACTERISTICS

Aromahop® OE can be used for various objectives. One kilogram of Aromahop® OE contains hop oil approximately equivalent to that contained in 15 kg of hop pellets. When added to the brewkettle late in the boil, Aromahop® OE will contribute hop aroma to both light-stable and traditionally hopped beers. As with traditional hops, the brewer can vary the final aroma profile in the beer by changing the timing and quantity of the Aromahop® OE addition. Beer that is packaged in clear or green glass demands a light-stable hopping regimen. However, most light-stable hop bitterness products do not contribute aroma. Aromahop® OE is a cost-effective option to add back the hop aroma that may be needed in these specially formulated beers. Furthermore, with regard to excess kettle foam that sometimes causes problems for the brewer with brews that receive only post fermentation hopping, an early brewkettle addition of Aromahop® OE will help to knock down foam during the boil, enabling the brewer to maximise brew kettle capacity and brewhouse throughput by maintaining an efficient boil.

#### PRODUCT SPECIFICATIONS

Description Dark yellow/brown to dark green or black paste which is liquid at temperatures above

60 °C (140 °F); at lower temperatures material is semi-solid.

Hop oils Oil content will vary depending on hop varietal characteristics but will exceed

25 mL/100g.

Density  $0.9 - 1.1 \, \text{g/mL}$ 

Iso-α-Acids < 0.2 %

< 10 % **β-Acids** 

## QUALITY AND FOOD SAFETY

BarthHaas maintains quality management systems registered to the ISO 9001 standard, as well as food safety management programs based on internationally recognised (HACCP) principles. Please refer to our web site (www.barthhaas.com) for more information on our systems and programs.

### PRODUCT USE

An initial addition rate of 1 kg of Aromahop® OE per 400 hL of beer added to the brewkettle 15 minutes before knockout is suggested as a starting point to conduct brewing trials. Since flavour and aroma are subjective and dependent on the overall character of the beer, adjustments to either the quantity of Aromahop® OE or the timing of the addition are then to be determined by the brewmaster. To reduce kettle foam, the addition of 0.3 kg Aromahop® OE per 100hL wort at the beginning of the kettle boil is recommended. Aromahop® OE should be stirred thoroughly before use to ensure that is homogeneous. Gentle warming of the container to not more than 50 °C may assist this.



## PACKAGING

The standard package size of Aromahop® OE is 3.5 kg pails. Larger package units are possible on request.

# STORAGE AND BEST-BY RECOMMENDATION

Store Aromahop® OE in full, closed containers at 15 - 25 °C (59 - 77 °F). We recommend usage within 24 months after processing. Aromahop® OE is stable at room temperature and therefore does not require refrigerated storage to maintain quality.

# SAFETY

Any material coming into contact with the skin should be washed off with soap and water. For more information download the relevant Safety Data Sheet (SDS).

### ANALYTICAL METHODS

- EBC 7.8 for hop-acids by HPLC
- ASBC Hops-16 for hop acids
- EBC 7.10 for hop oils
- ASBC Hops-13 for hop oils

### TECHNICAL SUPPORT

We will be pleased to offer help and advice on the use of Aromahop® OE in brewing.

E-Mail: Brewingsolutions@barthhaas.de