HopAid® Antifoam

Purpose
HopAid® Antifoam is used during fermentation to prevent excessive foam formation. It can be used for top and bottom fermented beers in all kinds of fermenters. Produced with deionised water and hop extract is considered food safe in both USA (GRAS) and EU.

Product Specifications
Appearance: Creamy pale yellow emulsion
Odour: Slight odour of hops
Solids: < 12%
Yeast and Moulds*: < = 10 cfu/g
TVC*: < = 100 cfu/g
Centrifuge Test: Pass / Fail
* Values monitored on a regular basis but not on every batch.

Composition

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Range</th>
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<tbody>
<tr>
<td>Hop Extract fraction</td>
<td>5 – 10 %</td>
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<tr>
<td>Food grade emulsifier</td>
<td>0.1 – 2 %</td>
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<tr>
<td>Water</td>
<td>Balance</td>
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Application
HopAid® Antifoam should be dosed into cold wort. Either inline or, alternatively, dosed into the fermenter before the cold wort is transferred. This will ensure good mixing with the wort which is essential for optimum performance. Dosing into hot wort will lead to unpredictable losses in the hot trub.

Depending on the brewing recipe and fermentation regime the dose rate for most applications will lie between 5 and 50 g/hL. For a normal strength lager type a starting dose rate of 20 g/hL is recommended. However, fermentations with high levels of foam stabilizing substances such as hop acids and proteins, dark malts and higher fermentation temperatures may require higher dosing.
rates. Products with high levels of adjuncts may require lower levels of HopAid® Antifoam addition. If the brewer is using a synthetic, silicone based product the dose rate can be used as an indication. In most cases HopAid® Antifoam should be dosed at 2x the concentration as the Silicone based product.

Effect of HopAid® Antifoam on the final beer
Technical studies and feedback from customers have not shown a negative impact on final beer foam, in fact some data suggest a positive one.

HopAid® Antifoam: Yeast and pH
Yeast removes the vast majority of the active components by adsorption on to the cell wall. Any remainder may be removed by filtration.
HopAid® Antifoam is incompatible with strong acids and bases.
Strong acids and strong bases will damage the antifoam, so HopAid® Antifoam should not be added to yeast directly after acid washing of the yeast. Beer pH is fine.

Trial Design:
The trial should consist of 2 initial trial fermentations, both with the same volume of wort and in tanks with the same dimensions. To the first fermentation no HopAid® Antifoam should be added (control sample) and the foam height should be monitored. Ensure that the tank is big enough to include the foam built in the control sample. The second fermentation with HopAid® Antifoam, added in the recommended starting dose rate, should use the same wort volume. To understand the required dose rate and the effects of HopAid® Antifoam, it is important to measure the following attributes if possible:

- Foam height in fermentation tank
- IBUs of the beer
- % of attenuation
- Beer foam stability

Safety
There are no known health hazards for this product. Please consult safety data sheet for full information.
Packaging
HopAid® Antifoam Antifoam is packaged in 1 kg Tetrapacks and 10 kg aluminium foils.

Transport
Transport temperatures should be maintained above 0°C to ensure the product does not freeze.

Storage
Ideally store away from direct sunlight and between 5°C and 20°C if unopened. HopAid® Antifoam can be stored in the original unopened containers for up to 15 months. Do not freeze as this will cause the emulsion to collapse. If this occurs the product can be redispersed by shaking to restore its antifoam capacity. Open containers should be stored cool (+5°C) and used within 2 days.