

# BETA BIO 45%

A clear brown liquid at room temperature, becoming more mobile when heated.  
Remains fluid even at 0°C.



## OVERVIEW

- Beta Bio 45% is produced from CO<sub>2</sub> extract of hops. It contains predominantly the natural β-acids fraction of hops extract dissolved in food grade Propylene Glycol.
- β-acids are well-known to have potent anti-microbial properties, and are particularly active against Gram positive bacteria and certain algae.
- It is typically added to molasses based feed stocks for the production of yeast or alcohol at a 5ppm dose rate.

## PROPERTIES

<b>ORGANOLEPTIC PROPERTIES</b>	Pleasant, floral aroma. Subtle bitter taste with floral overtones when diluted 1000 x into water.
<b>STABILITY</b>	When stored in the original unopened containers Beta Bio 45% is very stable. Use any opened containers as soon as possible.
<b>QUALITY</b>	All products are produced in plants accredited to internationally accepted quality standards.
<b>PACKAGING</b>	Beta Bio 45% is regularly available in 20-kg pails (HDPE) or 200-kg drums (PP). Other package sizes (including totes) are available on request.

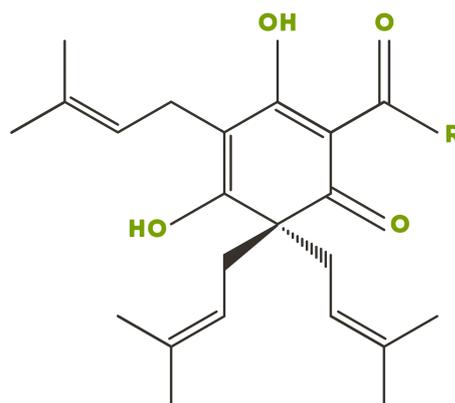
## APPLICATION

Beta Bio 45% 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 so as to disperse the product quickly. 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.

## QUICK SPECS

<b>DESCRIPTION</b>	A brown, clear solution containing the potassium salts of hop β- acids
<b>ALPHA ACIDS</b>	45 ± 1.5% (w/w) by HPLC
<b>DENSITY (AT 20°C)</b>	1.07 (± 0.01) g/ml
<b>VISCOSITY (AT 20°C)</b>	Typically about 300 cP
<b>PH IN WATER</b>	11.0 ± 0.5 (1 pt product: 3.5 pts water)

## STRUCTURE OF β-ACIDS



R = -CH-(CH<sub>3</sub>)<sub>2</sub> (Colupulone)  
 R = -CH<sub>2</sub>-CH-(CH<sub>3</sub>)<sub>2</sub> (Lupulone)  
 R = -CH(CH<sub>3</sub>)-CH<sub>2</sub>-CH<sub>3</sub> (Adlupulone)



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