

TECHNICAL DATA SHEET

Product Name: Bitter Blaster™

Product Code: 46-343

Update Date: September 2, 2016

TECHNICAL INFORMATION

Quality Attributes: Isoalpha acids in an aqueous solution.

Concentration specification by HPLC is:
30.0% ± 1.5% isoalpha acids.

Appearance: Clear, dark orange solution with no solids.

Aroma and Flavor: Adds sensory bitterness as isoalpha acids.

Shelf Life: Can be stored at room temperature (range of 20 °C – 30 °C) for the shelf life of the product. If solids form, warm to 50 °C – 60 °C and mix to make the product homogeneous prior to use. Should be part of an inventory control system, which will assure use in <18 months.

Uses: Designed for dosing into post-fermentation beer with bitterness utilization of approximately 75% - 85%. Product can also be dosed into brewkettle at end of boil or whirlpool with bitterness utilization of approximately 50% - 60%.

Replacement/Usage Level: Typical usage levels:

- 50 grams of product added to 10 bbl post-fermentation beer provides approximately 10 BU in final beer.
- 70 grams of product added to 10 bbl brewkettle or whirlpool wort provides approximately 10 BU in final beer.

GM Status: This product does not contain ingredients from genetically modified source materials and, where appropriate, ingredients are traceable back to origin with an Identity Preserved system.

Additional Assistance: For additional assistance on the qualification of Kalsec® products, such as supplier and product questionnaires, allergen declarations, nutritional, labeling, ingredient range declarations (component range breakdowns) and other documentation in support of your approval of Kalsec® products, please contact the Kalsec® Regulatory team at trequest@kalsec.com.

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