

## PRODUCT INFORMATION SHEET

**PRODUCT NAME:** YC-Tetra

**MANUFACTURER:** Yakima Chief, Inc.  
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### **DESCRIPTION:**

YC-Tetra is a clear, pale yellow aqueous solution of the potassium salts of hop-derived tetrahydroiso-*alpha*-acids. YC-Tetra is derived from a pure resin CO<sub>2</sub> extract of hops and is standardized at 9% w/w by HPLC analysis. *Custom blends and formulations may be available upon request.*

### **APPLICATION:**

YC-Tetra as 100% of the hop bill or in conjunction with other light stable hop extracts for the *hopping of light stable beers*. YC-Tetra is stable to light and will not contribute to the development of sun struck flavors.

YC-Tetra as part of your hop formulation to *enhance foam stand and cling*. Even at relatively low concentrations of 4-5 ppm, foam stand and lacing are significantly enhanced while maintaining the beer's characteristic flavor. YC-Tetra can be considered as a *unique bittering ingredient that also replaces foam additives*.

YC-Tetra as part of your hop formulation to *improve long-term flavor stability*.

YC-Tetra as part of your hop formulation to *differentiate beers*. Bitterness profile is sharper and more intense than for iso-alpha acids. This can be perceived at high concentrations (>10 ppm).

### **USE RATE CALCULATIONS:**

In optimal dosing conditions the addition of 1Kg. of YC-Tetra at 9% w/w per 100hL of finished beer will provide 6-7 bitter units. The bitterness intensity is about 1.6 times that of Iso-alpha acids so 7 bittering units will be perceived as 11 bittering units by taste.

Use rates may vary depending on the point of addition and the desired hopping level.

### **DOSING METHODS:**

*Yakima Chief recommends the direct, undiluted injection of YC-Tetra into the beer stream.*

If an appropriate pump is not available, YC-Tetra can be diluted with deionized water. The dilution factor will be determined according to the available dosing installation. Buffering agents are not required.

In any case, YC-Tetra should be added to beer after fermentation and primary filtration, at a point where there is good mixing and ideally before a final filtration step. A good proportioning over min. 75% of the filtration time is recommended. YC-Tetra injections should be made with a positive displacement pumping system. CO<sub>2</sub> backpressure should not be used. A 2-3 mm. diameter dip tube positioned in the middle of the beer stream and oriented against it provides excellent dispersion.

**CHARACTERISTICS:**

**FLAVOR** of a solution in de-ionized water containing 10 mg/L. of TetraHydroIso-*alpha*-acids:

A fine bitterness with no other detectable flavors.

**AROMA** of a solution in de-ionized water containing 10 mg/L. of TetraHydroIso-*alpha*-acids:

None Detectable

**GUSHING POTENTIAL IN BEER:**

No Increased Potential

**PACKAGING:**

20 Kg. deltangular plastic containers,  
2 layers of 16 drums per pallet (640 Kg)

**STORAGE:**

Unopened containers stored at room temperature for 24 months. Product should be stored at room temperature. A deposit may form on prolonged storage at low temperatures. This deposit dissolves on warming and shaking. Opened containers should be used within 1 month.