

# **TETRA ISO-EXTRACT**

### **OVERVIEW**

**Tetra Iso-Extract (Tetra)** is a pure, aqueous solution of the potassium salts of tetrahydro iso-alpha acids derived from  $CO_2$  hop extract.

# **SPECIFICATIONS**

**Short description** aqueous hop extract with intense bitterness

Alpha acids below detection limit

Iso-alpha acids below detection limit

**Tetrahydro-Iso-alpha acids** 9.0  $\pm$  0.5 % (w/w) HPLC | 10.0  $\pm$  0.5 % (w/w) Spectro

**pH**  $9.5 \pm 1.0$ 

**Density** ca. 1.02 g / ml (20 $^{\circ}$ C)

**Viscosity** 2 - 6 mPas (20° C / 68° F)

# **PROPERTIES**

# **APPEARANCE**

Tetra is a homogeneous, clear aqueous solution that is amber in color.

### **QUALITY**

All Hopsteiner® products are processed in facilities which fulfill internationally recognized quality standards. A monitoring system for residues is in place.

# **PACKAGING**

Our products are delivered in their respective recommended standard packaging. Alternatives may be possible upon customer request.

Standard packages of our processing plants in the USA (US) and Germany (DE) are:

- Canister 20 kg (US / DE)
- Jug 10 kg (US)
- Pail 20 kg (US)

### **USAGE**

#### **DOSAGE**

The dosage of Tetra is highly dependent on the intended use. The quantity to be dosed can vary greatly depending on the matrix and the desired intensity of bitterness.

#### **CLEANING RECOMMENDATION**

Tetra should not be left in dosing lines at low temperatures. Lines and dosing pumps should be flushed with warm, slightly alkaline, demineralized water or ethanol for purposes of cleaning.

#### **STORAGE**

The recommended storage temperature in the original unopened packaging is 5 - 25 °C (41 - 77 °F). For prolonged storage, a temperature of 10 - 20 °C (50 - 68 °F) is ideal.

#### **BEST BEFORE DATE**

Under the recommended storage conditions, the shelf life from the date of production/ packaging is at least 2 years.

#### **SAFETY**

Ensure good ventilation of the workplace and wear personal protective equipment. Avoid contact with eyes and skin. Do not inhale vapors or dusts. For full safety information, please refer to the relevant Hopsteiner® safety data sheet.

### **ANALYTICAL METHODS**

International approved methods listed in committees such as ASBC or Analytica-EBC using current standards are applied.

#### **PRODUCT ANALYTICS**

Concentration of bitter substances

- Analytica-EBC 7.9 (HPLC)
- ASBC Hops-18 (Spectro)

#### **TECHNICAL SUPPORT**

We are pleased to offer assistance and advice on:

- · safety data sheets
- support for brewing trials on a pilot or commercial scale
- analytical services and information about analytical procedures

Disclaimer: The information provided in this document is believed to be correct and valid. However, Hopsteiner® does not guarantee that the information provided here is complete or accurate and thus assumes no liability for any consequences resulting from its application.

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Steiner Hops Ltd.