

# **XANTHOFLAV EXTRACT**

# **OVERVIEW**

**XanthoFlav Extract** is extracted from hops and consists mainly of xanthohumol and other prenylated flavonoids. This is a group of substances naturally occurring in hops as part of the hard resin fraction which is known to round off beer bitterness. For each hop variety, Xanthohumol is the main component not only of all prenylflavonoids but also of the whole hard resin fraction.

**XanthoFlav Extract** can be used in beverages or in other food applications.



# **SPECIFICATIONS**

Short description dry, powdery, xanthohumol-enriched hop product, well soluble in ethanol, less soluble in water

Moisture content < 5 %

Xanthohumol 70 - 90 % (w/w) HPLC

Other hop prenylflavonoids < 30 % Residual ethanol < 0.1 %

**Density** 300 - 600 g/l

### **PROPERTIES**

### **APPEARANCE**

yellow powder

#### **FLAVOR**

XanthoFlav Extract imparts a mild bitterness.

Xanthohumol is not only the main ingredient of the hard resin fraction but also one of its most taste active components. The taste threshold of Xanthohumol is about 3 to 4 mg/l. But even lower concentrations may contribute to beer bitterness via additive effects.

Source: Dresel, M., Dunkel, A., Hofmann. T.: Sensomics analysis of key bitter compounds in the hard resin of hops (Humulus Lupulus L.) and their contribution to the bitter profile of Pilsener-type beer. J. Agric. Food Chem. 2015. 3402-3418.

#### UTILIZATION

To achieve high recovery rates in the brewing process, the dosage has to take place as late as possible in the cold process. Moreover, predissolving in ethanol is recommended.

After dosing 1 g XanthoFlav Extract in 20 ml ethanol to 1 hl unfiltered beer, a xanthohumol content above 5 mg/l can be achieved. Risks of losses during filtration are dependent on both the process and on the type of beer. Higher recovery rates can be expected in beers produced with dark roasted malt.

#### **QUALITY**

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

### **PACKAGING**

Information on available packaging / containers on request.

### **USAGE**

#### **DOSAGE**

The required dosage of XanthoFlav Extract depends on the field of application.

# **STORAGE**

The recommended storage temperature in the original unopened packaging is  $< 10^{\circ}$ C (50°F).

## **BEST BEFORE DATE**

Under the recommended storage conditions, the shelf life from the date of production/ packaging is at least 4 years.

We recommend to consume opened containers within one month and to limit the number of openings.

## **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 Xanthohumol

• Analytica-EBC 7.15 (HPLC)

# **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.

# **ADDITIONAL INFORMATION**

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We take great care in the production of XanthoFlav Extract from natural raw materials. However, the use or application of XanthoFlav Extract is the sole responsibility of the purchaser.

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