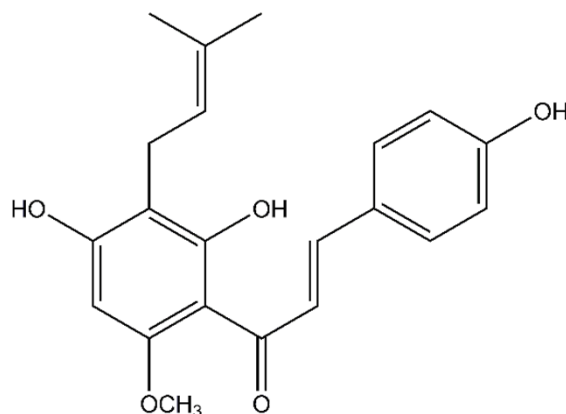


XanthoFlav™

❖ Overview

- **XanthoFlav™** is a natural product derived from hops.
- **XanthoFlav™** consists mainly of xanthohumol and other prenylated flavonoids occurring naturally in hops. Bitter substances and other hop constituents are largely separated.
- **XanthoFlav™** can be used as an ingredient in food, cosmetics or pharmaceutical applications.



Xanthohumol

❖ Specifications

- Description: yellow powder
- Xanthohumol*: 70 – 90 % (by HPLC)
- Other hop prenyl flavonoids* < 30 %
- Water: < 5.0 %
- Ethanol: < 0.1 %
- Density: 300 - 600 g / l
- Solubility: Very soluble in ethanol, less soluble in water

* dependent on variety and crop year

❖ Properties

• Appearance

XanthoFlav™ is a yellow powder.

• ORAC & HORAC Test Results

<u>Peroxy Radical Scavenging Capacity</u>	
	μmol Trolox / g
Xanthohumol (> 98%)	23447
Quercetin-Dihydrate (90%)	21779*

<u>Hydroxyl Radical Scavenging Capacity</u>	
	μmol Trolox / g
Xanthohumol (> 98%)	72245
Quercetin-Dihydrate (90%)	5610*

* Quercetin-Dihydrate (90%) was used as a reference standard.

Source: van Hoyweghen, L., Biendl M. and Heyerick A.: Radical Scavenging Capacity of hop-derived Products, BS Vol. 63 (2010)

• Flavor

XanthoFlav™ imparts a mild bitterness.

• Quality

All Hopsteiner® products are processed in facilities which fulfill internationally recognized quality standards

❖ Packaging

XanthoFlav™ can be packaged according to customer requirements, e.g. in brown glass bottles.

❖ Product Use

• Dosage

The required dosage of **XanthoFlav™** depends on the field of application.

• Storage

XanthoFlav™ should be stored in its original packaging, protected from light, at a temperature below 10°C (50°F).

• Best Before Date

XanthoFlav™ is stable for four years from the date it was produced / packaged if stored under the recommended conditions.

• Safety

XanthoFlav™ shows no acute oral toxicity (GHS category 5). If **XanthoFlav™** gets into the eyes, flush with copious amounts of water until clear and seek medical attention. For full safety information, please refer to the relevant Hopsteiner® safety data sheet.

❖ Analytical Methods

• Concentration of Xanthohumol

Xanthohumol can be measured using the following method:

- HPLC according to Analytica-EBC 7.15 with current international ICS-X standard.

❖ Technical Support

We are pleased to offer you support and advice for the entire Hopsteiner® product range:

- Information of all relevant analytical procedures
- Safety Data Sheets (SDS)
- Special analytical services

❖ Remarks

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

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.