

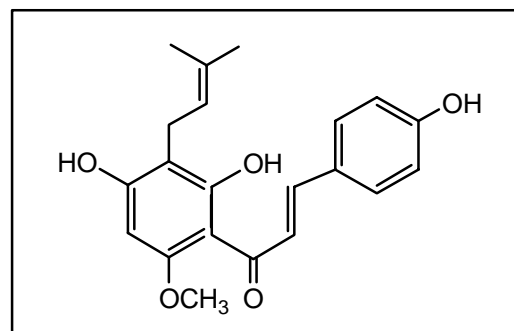
Xantho-Flav Extract

15 - 40%

❖ Overview

- **Xantho-Flav Extract** is a natural product produced from hops.
- The active ingredient in **Xantho-Flav Extract** is the hop polyphenol xanthohumol.
- Xantho-Flav Extract can be used as an ingredient in food, cosmetics or pharmaceutical applications.

Molecular Structure of Xanthohumol



❖ Specification (e.g. 20% XN)

- **Description:** A yellow, green colored powder.
- **Bitter compounds:** 50 - 70%
- **Prenylated Flavonoids:** 30 - 50%
 - **Xanthohumol:** 20%
 - **Iso-xanthohumol:** <5%
- **Ethanol** < 0.5% by GC
- **Density:** ~0.5 g/ml
- **Solubility:** Very soluble in ethanol, nearly insoluble in water.

Further information on solubility:
J. Agric. Food Chem. 1999, 2421 – 2428.

❖ Packaging

Xantho-Flav Extract is packaged in various types of containers depending on customer requirements.

❑ Storage stability:

Xantho-Flav Extract is stable for two years from the date of production. The product should be stored < 5 °C and be protected from light.

❑ Safety:

Xantho-Flav Extract is classified in GHS category 5. If **Xantho-Flav Extract** comes in contact with the eyes wash off with plenty of water and seek medical attention. For full safety information please see the relevant Steiner material safety data sheet.

❑ Quality:

All Hopsteiner® products are produced in plants accredited to internationally accepted quality standards. **Xantho-Flav Extract** is Food Grade and Kosher.

Analytical methods

❑ Concentration of Xantho-Flav Extract in Product:

The concentration of **Xantho-Flav Extract** can be determined by UV Spectrophotometric analysis or by HPLC using modified method Analytica-EBC 7.8 with UV detection at 370 nm or 290 nm for isoxanthohumol. The recommended procedures can be obtained from Steiner.

❖ Technical Support

We will be pleased to offer help and advice on the full range of Hopsteiner® products:

- ❑ Copies of all relevant analytical procedures
- ❑ Material Safety Data Sheets (MSDS)
- ❑ Assistance with pilot or commercial trials
- ❑ Specialist analytical services

❑ Physiological Properties

Xantho-Flav Extract contains a high concentration of the prenylated flavonoid Xanthohumol. As demonstrated in numerous “in-vitro”-tests Xanthohumol shows a wide range of potentially beneficial effects, among which is its high degree of antioxidative activity. Its bioavailability, impact on metabolism, and pharmacokinetics have all been examined in animal testing. A dose rate of 100 mg of Xanthohumol per kg of animal weight showed no toxic effect. (*Molecular Nutrition and Food Research Edition 9/05*)

❑ Orac Test Results:

Peroxy Radical Scavenging Capacity

	<u>µmol Trolox/g</u>
Xanthohumol (> 98%)	23447
Isoxanthohumol (> 98%)	19073
*Quercetin-Dihydrate (90%)	21779

Hydroxyl Radical Scavenging Capacity

	<u>µmol Trolox/g</u>
Xanthohumol (> 98%)	72245
Isoxanthohumol (> 98%)	29600
*Quercetin-Dihydrate (90%)	5610

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



Rev. 7.24.09

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