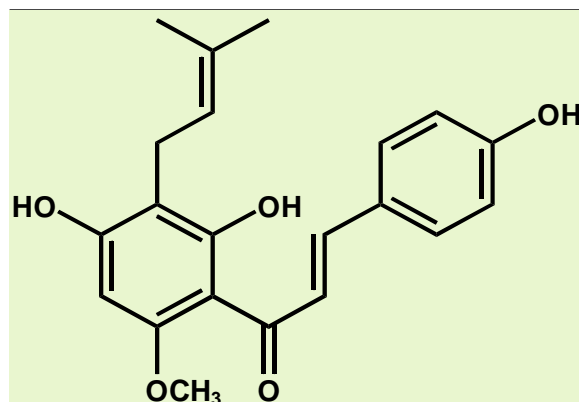


Xantho-Flav Extract

❖ 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

- **Description:** A green colored powder.
- **Bitter compounds:** 70 – 80 %
- **Prenylated Flavonoids:** 10 – 25 %
 - **Xanthohumol:** 8 – 15 %
 - **Isoxanthohumol:** < 2 %
- **Ethanol:** < 0.5 % by GC
- **Density:** ~ 0.75 g / ml
- **Solubility:** Very soluble in ethanol, nearly insoluble in water.
Further information on solubility:
J. Agric. Food Chem. 1999, 2421 – 2428.

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❖ Properties

❑ 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

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

Hydroxyl Radical Scavenging Capacity

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

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

❑ 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.

❖ Packaging

Xantho-Flav Extract is packaged in various types of contains depending on custom requirements.

❖ Analytical methods

Xanthohumol and iso-xanthohumol can be quantified by HPLC using Analytica-EBC 7.8 using external calibration standards of pure xanthohumol (370 nm) and pure iso-xanthohumol (290 nm).

❖ 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

❖ Remarks

We take great care in preparing **Xantho-Flav Extract** from hops, however, the use or application is the sole responsibility of the buyer.

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