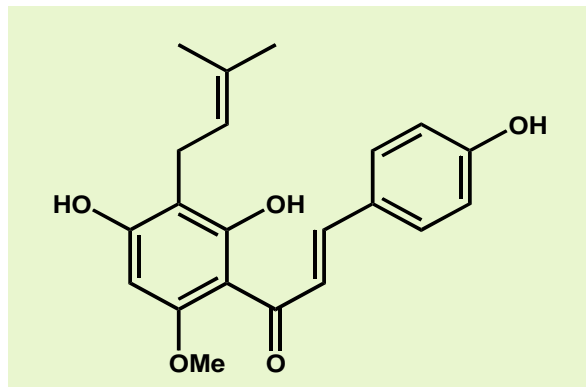


Xantho-Flav Extract

❖ Overview

- **Xantho-Flav Extract** is a natural product produced from hops.
- **Xantho-Flav Extract** consists of bitter compounds (mainly hard resins) and prenylated flavonoids (mainly xanthohumol) originating from hops. Other hop components are almost totally eliminated.
- **Xantho-Flav Extract** can be used as raw material for food production and in the cosmetics or pharmaceutical industries.



Xanthohumol

❖ Specifications

- **Bitter compounds:** 70 - 85 %
 - Iso-alpha-acids:** < 8 %
 - Alpha-acids:** < 4 %
 - Beta-acids:** < 1 %
- **Prenylated flavonoids:** 10 – 25 %
 - Xanthohumol:** 8 – 15 %
 - Isoxanthohumol:** < 2 %
- **Ethanol:** < 0.5 %
- **Density:** ~ 750 g/l

❖ Properties

❑ Appearance

A green powder.

❑ Taste

Xantho-Flav Extract has a bitter taste.

❑ Solubility

Although **Xantho-Flav Extract** is almost totally insoluble in water, it shows very good solubility in ethanol.

❑ 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, amongst which is its high degree of anti-oxidative activity. Its bioavailability, impact on metabolism and pharmacokinetics have all been examined in animal testing.

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A dose rate of 100 mg xanthohumol per kg of animal weight showed no toxic effect (*Molecular Nutrition and Food Research, Edition 9/05*).

❖ Quality

All Hopsteiner® products are produced in plants accredited to internationally accepted quality standards.

❖ Packaging

Xantho-Flav Extract can be packed in various types of containers (i.e. pails, cans or drums).

❖ Product Use

Xantho-Flav Extract can be used as solid powder or, alternatively, can be dissolved in ethanol (e.g. 1 g / 100 ml).

❖ Dosage

The required dosage of **Xantho-Flav Extract** depends on its specific use and method of addition.

❖ Storage

Xantho-Flav Extract should be stored cool (< 5°C) and be protected from light in sealed containers.

❖ Best Before

Xantho-Flav Extract is stable for a min. of 2 years from date of production under the recommended storage conditions.

❖ Safety

If **Xantho-Flav Extract** gets into the eyes, irrigate thoroughly with water and seek medical attention.

For full safety information please see the relevant Hopsteiner® material safety data sheet.

❖ Analytical Methods

The following methods are used when analysing **Xantho-Flav Extract**:

- ❑ Iso-alpha-, alpha- and beta-acids are quantified according to HPLC-method Analytica-EBC 7.8.
- ❑ Xanthohumol and Isoxanthohumol are quantified according to modified HPLC method Analytica-EBC 7.8 with UV detection at 370 nm (external calibration by pure xanthohumol) or 290 nm (external calibration by pure iso-xanthohumol).

❖ Technical Support

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

- ❑ Material Safety Data Sheets (MSDS)
- ❑ Copies of all relevant analytical procedures
- ❑ Specialist analytical services

❖ Remarks

We take a great deal of care in the preparation of **Xantho-Flav Extract** from a natural raw material (hops). However, the use or application of **Xantho-Flav Extract** is the sole responsibility of the buyer.

PDS 27/04 issued 05/2009