Xantho-Flav

❖ Overview

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

❖ Specification

- Description: Yellow colored powder.
- Xanthohumol: 65 – 85 %
- Ethanol, Ethylacetate: < 0.5 %
- Density: ~ 0.5 g / ml
- Solubility: Very soluble in ethanol, nearly insoluble in water.
Properties

Physiological Properties
Xantho-Flav 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

Peroxyl Radical Scavenging Capacity

<table>
<thead>
<tr>
<th>Compound</th>
<th>µmol Trolox/g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xanthohumol (&gt; 98%)</td>
<td>23447</td>
</tr>
<tr>
<td>Isoxanthohumol (&gt; 98%)</td>
<td>19073</td>
</tr>
<tr>
<td>*Quercetin-Dihydrate (90%)</td>
<td>21779</td>
</tr>
</tbody>
</table>

Hydroxyl Radical Scavenging Capacity

<table>
<thead>
<tr>
<th>Compound</th>
<th>µmol Trolox/g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xanthohumol (&gt; 98%)</td>
<td>72245</td>
</tr>
<tr>
<td>Isoxanthohumol (&gt; 98%)</td>
<td>29600</td>
</tr>
<tr>
<td>*Quercetin-Dihydrate (90%)</td>
<td>5610</td>
</tr>
</tbody>
</table>

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

Storage stability
Xantho-Flav 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 is classified in GHS category 5. If Xantho-Flav 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 is Food Grade and Kosher.

Packaging

Xantho-Flav 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 from hops, however, the use or application is the sole responsibility of the buyer.