Xantho-Flav Extract on Diatomaceous Earth

❖ Overview

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

❖ Specification

- **Description:** Olive green colored powder.
- **Bitter compounds:** 20 %
- **Xanthohumol:** 1.8 – 2.0 % (9 – 10 % without carrier material)
- **Density:** ~ 0.55 g / ml
Properties

Physiological Properties
Xantho-Flav Extract on D.E. 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>Component</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>Component</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 Extract on D.E. 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 on D.E. is classified in GHS category 5. If Xantho-Flav Extract on D.E. 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 on D.E. is Food Grade and Kosher.

Packaging
Xantho-Flav Extract on D.E. 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 on D.E. from hops, however, the use or application is the sole responsibility of the buyer.