



# HopXn +Curcumin Throat spray

## Product description

### Throat spray - Effective protection against pathogens

The medicinal product **HopXn+Curcumin**

- Forms an active barrier on the pharyngeal and laryngeal mucosa preventing penetration by viruses, bacteria, and fungi
- Has a synergistically active composition of hop flavonoids, including xanthohumol, curcumin, and curcuminoids exerting strong **antioxidant and anti-inflammatory effects**
- Supports **wound healing and regeneration**
- Moisturizes the throat and larynx
- Has a water-soluble composition ensuring **effective absorption** of active ingredients

The anti-inflammatory, antimicrobial, and antioxidant effects of HopXn+Curcumin Spray ingredients have been confirmed by scientific research. The upper respiratory tract is the gateway for viruses, including SARS-CoV-2, into the organism. The HopXn+Curcumin spray forms an active barrier on the throat and larynx mucosa preventing penetration of viruses, bacteria, and fungi into the organism. The natural plant-origin ingredients of HopXn+Curcumin ensure safety of application of the product several times a day. Importantly, even a safe formulation may trigger allergic reactions, especially in allergy sufferers.

#### **Xanthohumol (Xn)**

Common hops (*Humulus lupulus* L.) contain approximately 130 different substances, including bitter acids, polyphenols, essential oils, monosaccharides, amino acids, proteins, lipids, fatty acids, pectins, salts, lignins, and other compounds. The polyphenolic compounds present in hops at an average level of 3-5% are represented by **flavonoids**. The dominant flavonoid in hops is **xanthohumol**, which constitutes approximately 90% of all prenylated flavonoids, i.e. the so-called chalcones, in this plant. Its content in hop cones is approx. 1% of dry matter. Xanthohumol is contained in female inflorescences.

The extraction of natural xanthohumol from hops is a long-term process requiring specialist knowledge. Based on the expertise of a Professor of biological sciences, BioActive Tech Ltd. has developed an extremely efficient original method for extraction of xanthohumol with high pharmaceutical purity (<http://xanthohumol.com.pl/>). In the next stage of the investigations, the Professor designed the HopXn+Curcumin Throat Spray with high antimicrobial and anti-inflammatory effectiveness ensured by the synergistic effect of xanthohumol, curcumin, and curcuminoids.

#### **Curcumin (Cur)**

Another **chalcone**, 1.e. curcumin with its derivatives called curcuminoids, is an ingredient of HopXn+Curcumin. Curcumin is a natural polyphenolic compound obtained from *Curcuma longa* rhizomes.

Similar to xanthohumol, it exhibits a number of therapeutic properties, e.g. **antioxidant, antibacterial, anti-proliferative, anti-inflammatory, neuroprotective, and cardioprotective** activities.

**Curcuminoids**, i.e. the most active ingredients in turmeric, are polyphenols with structural similarity to curcumin and very strong antioxidant activity responsible for the health enhancing properties of turmeric. As shown by the latest research, they increase the bioavailability and activity of curcumin.

## Literature

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