ZANTHALENE® is an Ecocert validated CO₂ extract from the fruit husks of Zanthoxylum bungeanum (commonly known as Sichuan pepper), a plant widely used in the Asian gastronomy as a spice. The lipophilic alkylamides hydroxy α and β-sanshools have been identified as the tingling principles of these plants, and the extract has already been broadly documented as a relevant soothing and anti-itching agent.
The α-hydroxysanshool is the compound responsible for the tingling effect of the Zanthoxylum spice. It has been demonstrated to interact both with tactile (pressure) and temperature receptors and evoke a peculiar and unique tingling sensation. The diasteromeric alkamides bind to and inhibit the two-pore K channels KNCK3, 9, and 18, and can also interact with other chemestetic TRP receptors. The tingling sensation is not solely imputable to this latter interaction.1

**ZANTHALENE® - PROPERTIES**

Zanthoxylum bungeanum Maxim. is the archetypal inducer of tingling, a kind of “electrical” sensation due to the presence of unique alkamides like α-hydroxysanshool. In vitro investigations have shown that the lipophilic extract from Z. bungeanum interacts on voltage dependent Na+ channels. ZANTHALENE® could therefore modulate thermal and tactile sensitivity, attenuating skin discomfort and itching.

Based on these findings and on promising preliminary clinical results, in a pilot controlled study ZANTHALENE® has shown an immediate, measurable and visible immediate lifting efficacy when applied on the crow feet area in healthy volunteers.2

Two ZANTHALENE® formulations have been tested as anti-wrinkle agents in a pilot controlled trial on healthy volunteers. In the ZANTHALENE® 1% group a reduction of mean roughness (Ra) after 30 minutes has been observed. While no statistical change in the maximum roughness (Rz) has been observed, the visual effect has been documented by digital imaging.

Mean roughness decreased by over 16% in as a short time as 30 minutes. ZANTHALENE® is also characterized by a remarkable safety profile, in line from its derivation from an edible plant.3

**EVALUATION DATA**


**CHARACTERISTICS**

<table>
<thead>
<tr>
<th>INCI NAME</th>
<th>Oleyl Alcohol, Zanthoxylum bungeanum Fruit Extract</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS</td>
<td>Oleyl Alcohol: 68002-94-8; Zanthoxylum bungeanum Fruit Extract: 102242-62-6</td>
</tr>
<tr>
<td>EC</td>
<td>Oleyl Alcohol: 268-106-1; Zanthoxylum bungeanum Fruit Extract: 310-094-8</td>
</tr>
</tbody>
</table>

**APPLICATIONS**

ZANTHALENE® fully qualifies as an ideal ingredient to provide an immediate lifting effect.

When associated with other anti-wrinkle agents providing a longer term efficacy, it is recommended for the formulation of immediate and long term anti-wrinkle and anti-aging products.

**RECOMMENDED DOSAGE: 1%**