Thymoquinone contents in Black Cumin oil, SCFE and Subcritical CO2 extracts

<table>
<tr><th>Cold pressed Oil</th><th>SCFE</th><th>Subcritical CO2 extract</th></tr>
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<td>Six different batches of cold-pressed black cumin seed oils (BCSO) were evaluated for their fatty acid profiles, thymoquinone contents, oxidative stability, and antioxidant properties. Linoleic, oleic, and palmitic acids were the major fatty acids in the tested oils. The cold-pressed BCSO samples differed in their oxidative stability measured as the oxidative stability index (OSI). The greatest OSI was about 155 h, and the lowest OSI was proximately 76 h, reflecting a 2-fold difference in their oxidative stability. These BCSO contained significant level of phenolic components with a concentration ranging from 1.02 to 1.40 mg gallic acid equivalents/g oil. In addition, BCSO contained about 3.48–8.73 mg/g thymoquinone (0,5%) and trace amount of dithymoquinone. Electron spin resonance (ESR) analysis showed that cold-pressed BCSO contained natural antioxidants and was able to suppress radical mediated lipid peroxidation in fish oil.</td>
<td>D/E-Ratio:
5,9 - 7,1 kg raw material yield 1 kg product
Declaration:
INCI-Name (CTFA): Nigella Sativa (Black cumin) Seed Extract, CAS-No. 90064-32-7 , EINECS-No. 290-094-1 and Rosmarinus Officinalis (Rosemary) Leaf Extract, CAS-No. 84604-14-8, EINECS-No. 283-291-9 (INCI Key G: less than or equal to 0,1 %)
Ingredients:
Fatty oil with high content of polyunsaturated fatty acids, including 45 - 65% linoleic acid C18:2w6, as well as > 1% of the rare Eicosadienoic acid C20:2w9. The oil contains > 2.0% essential oil, consisting mainly of thymoquinone, cymene, thujene, carvacrol, thymohydroquinone etc. The content of thymoquinone in the extract is > 1,0 % (quantified by HPLC).</td>
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<table>
<tr><td>thymoquinone %</td><td>24.5</td></tr>
<tr><td>palmitic acid %</td><td>6.3</td></tr>
<tr><td>oleic acid %</td><td>7.7</td></tr>
<tr><td>Linoleic acid %</td><td>19.9</td></tr>
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