

## **Omega-3, EPA and DHA Enriched Low-fat Spreads**

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Spreads are often regarded as a suitable foodstuff to help consumers to achieve the recommended daily intake of total omega-3 and of EPA (eicosapentaenoic acid; C20:5 (n-3)) and DHA (docosahexaenoic acid; C22:6 (n-3))<sup>1</sup>.

The aim of this study is to incorporate high levels of EPA and DHA into a very low-fat spread. The water-phase of the spread consists of a high portion of concentrated milk protein and a fat-phase with a combination of vegetable oils, butter oil and fish oil. The fat content is 27 % with total 2000 mg omega-3 fatty acids and 1000 mg EPA + DHA per 100 g. The spreads are made by using two different high quality oils (EPADHA Oil 1100 and EPADHA Oil 2100). The volatile compounds was measured with use of dynamic headspace gas chromatography – masspectroscopy (GC-MS). The results from sensory evaluation and the marker compounds for lipid oxidation in the products after 1, 5 and 10 weeks storage at 4 °C will be shown.

In conclusion, it is possible to achieve high levels of EPA and DHA in low-fat spreads without off-taste by using high quality fish oils.

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