Claims

1. Process for increasing the stability towards oxidation of a composition comprising polyunsaturated omega-3 fatty acids comprising the following steps:

   (i) providing a starting composition comprising at least one polyunsaturated omega-3 fatty acid component;

   (ii) providing a lysine composition in such a manner that a ratio R = n(ca)/n(lys) of the amount of carboxylic acid functions n(ca) in the starting composition provided in step (i) and the total amount of free lysine n(lys) in the lysine composition is in a range selected from 0.9 < R < 1.1, 0.95 < R < 1.05, 0.98 < R < 1.02;

   (iii) admixing aqueous, aqueous-alcoholic or alcoholic solutions of starting composition and lysine composition, and subjecting resulting admixture to spray drying conditions subsequently, thus forming a solid product composition comprising at least one salt of a cation derived from lysine with an anion derived from a polyunsaturated omega-3 fatty acid; the product composition exhibiting a solvent content SC selected from the following: SC < 5 wt%, SC < 3 wt%, SC < 1 wt%, SC < 0.5 wt%
   and the solvent of the admixture subjected to spray drying conditions is an aqueous-alcoholic solvent system containing 20 wt% to 90 wt% water and 80 wt% to 10 wt% alcoholic solvents.

2. Process according to claim 1, wherein the starting composition provided in step (i) does not contain more than x(fe) wt% of fatty acid esters, wherein x(fe) is selected from 5, 3, 1, 0.3, 0.

3. Process according to any one of claims 1 to 2, wherein starting composition in step (i) and lysine composition in step (ii) are provided in such a manner that at least sp wt% of the product composition consist of one or more salts of cations derived from lysine with anions derived from one or more polyunsaturated omega-3 fatty acids and other naturally occurring fatty acids, wherein sp is selected from 90, 95, 97, 98, 99, 100.

4. Composition obtainable by a process according to any one of claims 1 to 3.

5. Use of a composition according to claim 4 for the manufacture of food products comprising polyunsaturated omega-3 fatty acids.

6. Use of a composition according to claim 4 for the manufacture of nutritional products comprising polyunsaturated omega-3 fatty acids.

7. Use of a composition according to claim 4 for the manufacture of pharmaceutical products comprising polyunsaturated omega-3 fatty acids.