CLAIMS

1. A composition comprising a fat-soluble active ingredient, comprising tocopherol, vitamin C palmitate and a fat-soluble active ingredient; wherein the weight ratio of tocopherol to vitamin C palmitate is 2-8:1, the weight ratio of a combination of tocopherol with vitamin C palmitate to the fat-soluble active ingredient is 7-13:100; wherein the fat-soluble active ingredient is selected from the group consisting of docosahexaenoic acid (DHA) acetate, linoleic acid glyceride, and linolenic acid phosphate.

2. The composition comprising a fat-soluble active ingredient according to claim 1, wherein the weight ratio of tocopherol to vitamin C palmitate is 3-7:1.

3. The composition comprising a fat-soluble active ingredient according to claim 2, wherein the weight ratio of tocopherol to vitamin C palmitate is 4-6:1.

4. The composition comprising a fat-soluble active ingredient according to claim 1, wherein the weight ratio of a combination of tocopherol with vitamin C palmitate to the fat-soluble active ingredient is 8-12:100.

5. The composition comprising a fat-soluble active ingredient according to claim 4, wherein the weight ratio of the combination of tocopherol with vitamin C palmitate to the fat-soluble active ingredient is 9-11:100.

6. A fat-soluble active ingredient microcapsule containing the composition comprising a fat-soluble active ingredient according to any one of claims 1-5.

7. An use of the fat-soluble active ingredient composition comprising a fat-soluble active ingredient according to any one of claims 1-5 in the preparation of foods, beverages, animal feeds, cosmetics or pharmaceuticals.

8. A process of preparing the fat-soluble active ingredient microcapsule according to claim 6, comprising the following steps:

1) blending and melting a fat-soluble active ingredient with an antioxidant in a certain weight ratio at temperature of 45-85℃ under nitrogen protection to form an oil phase A of a fat-soluble active ingredient molten oil; wherein the antioxidant is

tocopherol and vitamin C palmitate, the fat-soluble active ingredient is selected from at least one of the group consisting of DHA acetate, linoleic acid glyceride, and linolenic acid phosphate;

2) dissolving a gelatin or a modified starch as a low molecular filler and a glucose or a white sugar in water at 60-70℃ under nitrogen protection, to obtain an aqueous phase B;

3) blending the oil phase A of step 1) with the aqueous phase B of step 2) under nitrogen protection, and then high-speed shear emulsifying, degasifying and homogenizing under nitrogen protection in sealed from light conditions, to obtain an emulsion; and

4) spraying and granulating the emulsion of step 3), and then fluidizing and drying , to obtain a fat-soluble active ingredient microcapsule.

9. The process according to claim 8, wherein crosslinking the fat-soluble active ingredient microcapsule of step 4), to obtain a water repellent type fat-soluble active ingredient microcapsule.