CLAIMS

1. A process of preparing a fat-soluble active ingredient microcapsule, 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.

2. The process according to claim 1, wherein crosslinking the fat-soluble active ingredient microcapsule of step 4), to obtain a water repellent type fat-soluble active ingredient microcapsule.

3. The process according to claim 1, 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.

4. The process according to claim 3 wherein the weight ratio of tocopherol to vitamin C palmitate is 3-7:1.

5. The process according to claim 4, wherein the weight ratio of tocopherol to vitamin C palmitate is 4-6:1.

6. The process according to claim 3, wherein the weight ratio of a combination of tocopherol with vitamin C palmitate to the fat-soluble active ingredient is 8-12:100.

7. The process according to claim 6, wherein the weight ratio of the combination of tocopherol with vitamin C palmitate to the fat-soluble active ingredient is 9-11:100.