Claims

1. A self-emulsifying drug delivery formulation, said formulation comprising:

a fat-soluble compound selected from tocotrienols and the derivatives thereof;

two emulsifiers each selected from the group consisting of nonionic surfactants, wherein the emulsifiers are sorbitan monolaurate and polyoxythylene sorbitan 20 monooleate; and

an oil carrier selected from the group consisting of glycerides.

2. The formulation as claimed in claim 1, wherein the amount of emulsifiers is about 10% to about 60%, by weight of the formulation.

3. The formulation as claimed in claim 1 or 2, wherein the amount of emulsifiers is about 15% to about 45%, by weight of the formulation.

4. The formulation as claimed in any one of claims 1 to 3, wherein the weight ratio of said sorbitan monolaurate to polyoxythylene sorbitan 20 monooleate is about 1:1 to about 1:20.

5. The formulation as claimed in any one of claims 1 to 4, wherein the weight ratio of said sorbitan monolaurate to polyoxythylene sorbitan 20 monooleate is about 1:2 to about 1:8.

6. The formulation as claimed in any one of claims 1 to 5, wherein the fat-soluble compound is tocotrienol.

7. The formulation as claimed in any one of claims 1 to 6, wherein the amount of the fat-soluble compound is about 5% to about 60% by weight of the formulation.

8. The formulation as claimed in any one of claims 1 to 7, wherein the amount of the fat-soluble compound is about 10% to about 50%, by weight of the formulation.

9. The formulation as claimed in any one of claims 1 to 8, wherein the oil carrier is glycerol trioleate (GTO) oil.

10. The formulation as claimed in any one of claims 1 to 9, wherein the amount of oil carrier is not more than about 70%, by weight of the formulation.

11. The formulation as claimed in any one of claims 1 to 10, wherein the amount of oil carrier is about 6% to about 56%, by weight of the formulation.

12. The formulation as claimed in claim 9, wherein said glycerol trioleate (GTO) oil includes the main triglycerides (TG) of triolein (OOO, C18:1).

13. The formulation as claimed in claim 12, wherein said glycerol trioleate (GTO) oil comprises of the amount of triolein (OOO, C18:1) about 55% to about 99% by weight of said GTO oil.

14. The formulation as claimed in claim 12 or 13, wherein said glycerol trioleate (GTO) oil comprises of the amount of triolein (OOO, C18:1) about 65% to about 85% by weight of said GTO oil.

15. The formulation as claimed in any one of claims 1 to 14, further comprising fatty acid selected from the group consisting of oleic acid, palmitic acid, stearic acid and mixtures thereof.

16. The formulation as claimed in any one of claims 1 to 15, wherein the formulation is made into powder form, tablet or filled into a gelatin capsule.

17. The formulation as claimed in claim 16, wherein said formulation is filled into a gelatin capsule, in which said gelatin capsule is a hard-shelled gelatin capsule or a soft-shelled gelatin capsule.

18. The formulation as claimed in any one of claims 1 to 17, wherein the formulation is in a form for oral delivery.

19. Use of a self-emulsifying formulation comprising a fat-soluble compound selected from tocotrienols and the derivatives thereof, two emulsifiers each selected from the group consisting of nonionic surfactants, wherein the emulsifiers are sorbitan monolaurate and polyoxyethylene sorbitan 20 monooleate, and an oil carrier selected from the group consisting of glycerides, in the manufacture of a dietary supplement for supplementing a subject’s intake of a daily allowance of the fat-soluble nutrient.