

CLAIMS

1. A drug delivery composition of phospholipids, tocotrienols and tocopherol for oral administration to enhance the normalisation of fatty liver, wherein the amount of phospholipids in the composition is in the range of substantially 4.5 % (w/w) to substantially 20 % (w/w), the amount of tocotrienols is in the range of substantially 10 % (w/w) and 35 % (w/w) and the amount of tocopherol is in the range of substantially 2 % (w/w) to substantially 10 % (w/w).
2. The composition according to Claim 1 further comprises water-soluble vitamin selected from the group consisting of nicotinamide, cyanocobalamine and folic acid.
3. The composition according to Claim 1 or 2, wherein the tocotrienols comprises alpha tocotrienol in the range of substantially 3.5 % (w/w) to substantially 9 % (w/w) beta tocotrienol in the range of substantially 0.4 % (w/w) to substantially 2.2 % (w/w), gamma tocotrienol in the range of substantially 4.5 % (w/w) to substantially 15.5 % (w/w), delta tocotrienol in the range of substantially 1 % (w/w) to substantially 7.5 % (w/w).
4. The composition according to any one of Claims 1 to 3, wherein the tocopherol comprises alpha tocopherol in the range of substantially 2 % (w/w) to substantially 10 % (w/w).
5. The composition according to any one of Claims 1 to 4, wherein the phospholipids used is plant-based phosphatidylcholine, phosphatidylethanolamine, phosphatidic acid, phosphoinositides or phosphatidylserine.

6. A self-emulsifying composition for oral administration to enhance the normalisation of fatty liver, the self-emulsifying composition comprising a non-ionic surfactant, a co-surfactant, vegetable oil and active ingredients comprising phospholipids, tocotrienols and tocopherol.
7. The self-emulsifying composition according to Claim 6 further comprises water-soluble vitamin selected from the group consisting of nicotinamide, cyanocobalamine and folic acid.
8. The self-emulsifying composition according to Claim 6 or 7, wherein the non-ionic surfactant used is polyoxy-35 castor oil.
9. The self-emulsifying composition according to any one of Claims 6 to 8, wherein the co-surfactant used is caprylocaproyl macrogol-8-glycerides.
10. The self-emulsifying composition according to any one of Claims 6 to 9, wherein the vegetable oil used is palm olein.
11. The self-emulsifying composition according to any one of Claims 6 to 10, wherein the phospholipids used is plant-based phosphatidylcholine, phosphatidylethanolamine, phosphatidic acid, phosphoinositides or phosphatidylserine.
12. The self-emulsifying composition according to any one of Claims 6 to 11, wherein the tocotrienols used comprises alpha tocotrienol in the range of substantially 3.5 % (w/w) to substantially 9 % (w/w), beta tocotrienol in the range of substantially 0.4 % (w/w) to substantially 2.2 % (w/w), gamma tocotrienol in the range of substantially 4.5 % (w/w) to substantially 15.5 %

(w/w) and delta tocotrienol in the range of substantially 1 % (w/w) to substantially 7.5 % (w/w).

13. The self-emulsifying composition according to any one of Claims 6 to 12,
5 wherein the tocopherol used comprises alpha tocopherol in the range of substantially 2 % (w/w) and substantially 10 % (w/w).
14. The use of a self-emulsifying composition comprising phospholipids,
tocotrienols and tocopherols in the manufacturing of a supplement to enhance
10 normalisation of fatty liver, wherein the amount of phospholipids is in the range of substantially 4.5 % (w/w) to substantially 20 % (w/w) and the amount of the tocotrienols is in the range of substantially 10 % (w/w) to substantially 35 % (w/w) and tocopherol is in the range of substantially 2 % (w/w) to substantially 10 % (w/w).
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15. A method for producing a self-emulsifying composition for oral administration to enhance the normalisation of fatty liver, the method comprising the steps of:
mixing a non-ionic surfactant, co-surfactant and vegetable oil to obtain a first mixture;
- 20 adding phospholipids into the first mixture and mixing to obtain a homogeneous second mixture; and
adding a mixture of tocotrienols and tocopherols into the second mixture and further mixing thereof until homogeneous.
- 25 16. The method according to Claim 15 further comprises a step of melting beeswax into the vegetable oil, followed by adding there into the first mixture.
17. The method according to Claim 15 or 16 further comprises a step of sieving water-soluble vitamin powder into the second mixture followed by shearing

and milling thereof.

18. The method according to any one of Claims 15 to 17, wherein the water-soluble vitamin used is selected from the group consisting of nicotinamide, cyanocobalamine and folic acid.
19. The method according to any one of Claims 15 to 18, wherein the self-emulsifying composition comprises the amount of phospholipids is in the range of substantially 4.5 % (w/w) to substantially 20 % (w/w) and the amount of the tocotrienols is in the range of substantially 10 % (w/w) to substantially 35 % (w/w) and tocopherol is in the range of substantially 2 % (w/w) to substantially 10 % (w/w).
20. The method according to any one of Claims 15 to 19, wherein the tocotrienols used comprises alpha tocotrienol in the range of substantially 3.5 % (w/w) to substantially 9 % (w/w), beta tocotrienol in the range of substantially 0.4 % (w/w) to substantially 2.2 % (w/w), gamma tocotrienol in the range of substantially 4.5 % (w/w) to substantially 15.5 % (w/w) and delta tocotrienol in the range of substantially 1 % (w/w) to substantially 7.5 % (w/w).
21. The method according to any one of Claims 15 to 20, wherein the tocopherol used comprises alpha tocopherol in the range of substantially 2 % (w/w) to substantially 10 % (w/w).
22. The method according to any one of Claims 15 to 21, wherein the non-ionic surfactant used is polyoxy-35 castor oil.
23. The method according to any one of Claims 15 to 22, wherein the co-surfactant used is caprylocaproyl macrogol-8-glycerides.

24. The method according to any one of Claims 15 to 23, wherein the vegetable oil used is palm olein.

5 25. The method according to any one of Claims 15 to 24, wherein the phospholipids used is plant-based phosphatidylcholine, phosphatidylethanolamine, phosphatidic acid, phosphoinositides or phosphatidylserine.

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