CLAIMS

1. An emulsion composition comprising:

fish oil and medium-chain triglycerides (MCT) at a ratio between, but not inclusive of, 30:70 to 70:30 w/w; or

omega-3 fatty acids and medium-chain triglycerides (MCT) at a ratio of 30:70 to 70:30 w/w,

in which the total triglyceride + diglyceride content of the fish oil and/or omega-3 fatty acids comprise no more than 10 % diglyceride.

2. An emulsion according to Claim 1, comprising:

fish oil and medium-chain triglycerides (MCT) at a ratio of 40:60 to 60:40 w/w; or omega-3 fatty acids and medium-chain triglycerides (MCT) at a ratio of 40:60 to 60:40 w/w.

3. An emulsion according to Claim 1, comprising: fish oil and medium-chain triglycerides (MCT) at a ratio of 50:50 w/w; or omega-3 fatty acids and medium-chain triglycerides (MCT) at a ratio of 50:50 w/w.

4. An emulsion composition according to Claim 1, in which the composition further comprises alpha-tocopherol.

5. An emulsion composition according to Claim 4, in which the alpha-tocopherol is present at a level of at least 100 mg per litre of the emulsion composition.

6. An emulsion composition according to Claim 1, in which phytosterols are present in the composition.

7. An emulsion composition according to Claim 1, in which phytosterols or omega-6 fatty acids are present in the emulsion at a concentration of less than 100 mg/L.

8. An emulsion composition according to Claim 1, in which phytosterols are present in the emulsion at a concentration of less than 50 mg per litre of the emulsion composition.

9. An emulsion composition according to Claim 1, in which arachidonic acid is present in the composition at a concentration of at least 900 mg/L.

10. An emulsion composition according to Claim 1, in which docosahexaenoic acid is present in the composition at a concentration of at least 13.4 grams/L.

11. An emulsion composition according to Claim 1, in which eicosapentaenoic acid is present in the composition at a concentration of at least 11.6 grams/L.

12. An emulsion composition according to Claim 1, in which the composition comprises a mixture of an emulsion of a fish oil and/or omega-3 fatty acid oil and an emulsion of MCT.

13. An emulsion composition according to Claim 1, in which the composition comprises an emulsion of a mixture of a fish oil and/or omega-3 fatty acid oil and an MCT.

14. An emulsion composition according to Claim 1, in which the fish oil and/or omega-3 fatty acid oil have not been distilled or re-esterified.

15. The emulsion composition according to Claim 1, in which the omega-3 fatty acids are provided as an omega-3 predominate fatty acid oil which has not undergone re-esterification.

16. The emulsion composition according to Claim 1, in which the fish oil and/or omega-3 fatty acids comprise no diglycerides.

17. The emulsion composition according to Claim 1, in which the composition comprises (a) the fish oil and the MCT at a concentration of 10g to 50g per 100 mL (b) or the omega-3 fatty acids and the MCT at a concentration of 10g to 50g per 100 mL.

18. An emulsion composition according to Claim 1, formulated for parenteral or intravenous administration.

19. An emulsion composition according to Claim 1, in which the composition comprises an additive of one or more additional fatty acids or a mixture thereof.

20. An emulsion composition according to Claim 19, in which the composition a mixture of (a) an emulsion of the additive and (b) one or more emulsions of (i) the fish oil and/or omega-3 fatty acids and (ii) the MCT.

21. An emulsion composition according to Claim 1, further comprising one or more of egg phospholipid, glycerin, sodium oleate, and sodium hydroxide.

22. An emulsion composition according to Claim 1, in which the composition consists essentially of or consists of (a) MCT, (b) fish oil and/or omega-3 fatty acids, and (c) one or more emulsifiers.

23. An emulsion composition according to Claim 1, in which the composition consists essentially of or consists of (a) MCT, (b) fish oil and/or omega-3 fatty acids, (c) alpha-tocopherol, and (d) one or more emulsifiers.

24. An emulsion composition according to Claim 1, in which omega-6 fatty acids are present in the emulsion at a concentration of less than 50 mg/L.

25. An emulsion composition according to any preceding claim for use in a method of treatment of a condition in an individual.

26. An emulsion composition for use according to Claim 25, in which the emulsion composition is to be administered as a monotherapy.

27. An emulsion composition for use according to Claim 25 or 26, in which the condition is selected from the group consisting of:

hepatic steatosis; intestinal failure; parenteral nutrition-associated liver disease (PNALD); sepsis; cystic fibrosis; sickle cell anemia; pancreatitis; inflammatory bowel disease; Crohn’s disease; biliary atresia; primary sclerosis cholangitis; an inflammatory infection; an inflammatory condition; systemic inflammatory response syndrome (SIRS); hypertriglyceridemia; severe hypertriglyceridemia; severe hepatic steatosis; retinopathy of prematurity; acute tubular necrosis; IgA nephropathies; ischemia-reperfusion injury; traumatic brain injury; multi-system organ failure; respiratory distress syndrome; acute myocardial infarction; myocardial infarction; status anginosus; status asthmaticus; status epilepticus; status lacunaris; inflammatory bowel disease; regional enteritis; ulcerative colitis; severe or debilitating arthritis; arthritis; psoriasis; severe psoriasis; burns; third degree burns; pancreatitis; acute pancreatitis; intestinal failure associated liver disease (IFALD), parenteral nutrition associated cholestasis (PNAC), essential fatty acid deficiency (EFAD), parenteral nutrition dependency complicated by soy allergy or allergy to lipid emulsions comprising ingredients other than MCTs and fish oil, omega-3 predominate fatty acid oil, and/or omega-3 fatty acids.

28. An emulsion composition for use according to Claim 25, 26, or 27, in which the dose to be administered is from 0.5 g fish oil/kg/day to 5 g fish oil/kg/day.

29. An emulsion composition for use according to any of Claims 25 to 28, in which the administration is chronic.

30. An emulsion composition for use according to any of Claims 25 to 29, in which the composition is administered by total parenteral administration.