CLAIMS

1. A thixotropic composition comprising ethylcellulose in combination with a triacylglycerol oil and a non-ionic surfactant, wherein the ethylcellulose concentration is in the range of about 1-15 wt%.

2. The composition of claim 1, wherein the surfactant to oil ratio is in the range of about 40:60 to 60:40 (w/w) surfactant to oil.

3. The composition of claim 1, wherein the surfactant to oil ratio is in the range of about 45:55 to 55:45 (w/w) surfactant to oil.

4. The composition as defined in claim 1, wherein the oil is a mono-unsaturated triacylglycerol oil.

5. The composition of claim 4, wherein the oil is an oleic acid-containing oil.

6. The composition of claim 1, wherein the oil is selected from the group consisting of high-oleic sunflower, high-oleic & high-stearic sunflower oil, high-oleic soybean, high-oleic canola, high-oleic safflower oil, sunflower oil, safflower oil, soybean oil, algal oil, microbial oil, canola oil, avocado oil, olive oil, medium and short-chain saturated triglyceride oils and mixtures thereof.

7. The composition as defined in claim 1, wherein the ethylcellulose has a molecular weight selected from the group consisting of 4cp, 10cp, 22cp, 45cp, 100cp, 300cp and mixtures thereof.

8. The composition as defined in claim 1, wherein the surfactant comprises at least one of myristoleate, palmitoleate, oleate and gadoleate.

9. The composition as defined in claim 1 wherein the surfactant is selected from the group consisting of polyoxyethylene sorbitan monooleate (Tween 80), sorbitan

monooleate (SMO or Span 80), glyceryl monooleate (GMO), glyceryl dioleate, polyglyceryl ester of oleic acid (PGO), polyglyceryl polyoleate (PGPO) and polyglyceryl polyricinoleate (PGPR).

10. The composition as defined in claim 9, wherein the surfactant is GMO.

11. The composition of claim 1, wherein the ethylcellulose concentration is about 5-10%.

12. A method of preparing a thixotropic composition comprising:
a) combining ethylcellulose in an amount ranging from 1-15% with a triacylglycerol oil and a non-ionic surfactant, wherein the ratio of surfactant to oil is in the range of about 40:60 to 60:40 (w/w) to form a mixture;
b) heating the mixture until the ethylcellulose is solubilized; and
c) allowing the mixture to cool to form a thixotropic composition.

13. The method of claim 12, wherein the surfactant to oil ratio is in the range of about 45:55 to 55:45 (w/w) surfactant to oil.

14. The method as defined in claim 12, wherein the oil is a mono-unsaturated triacylglycerol oil.

15. The method of claim 14, wherein the oil is an oleic acid-containing oil.

16. The method of claim 14, wherein the oil is selected from the group consisting of high-oleic sunflower, high-oleic & high-stearic sunflower oil, high-oleic soybean, high-oleic canola, high-oleic safflower oil, canola oil, avocado oil, olive oil, sunflower oil, safflower oil, soybean oil, algal oil, microbial oil, medium and short-chain saturated triglyceride oils and mixtures thereof.

17. The method as defined in claim 12, wherein the surfactant is selected from the group consisting of polyoxyethylene sorbitan monooleate (Tween 80), sorbitan monooleate (SMO or Span 80), glyceryl monooleate (GMO), glyceryl dioleate (DGO),

polyglyceryl ester of oleic acid (PGO), polyglyceryl polyoleate (PGPO) and polyglyceryl polyricinoleate (PGPR).

18. A thixotropic composition comprising ethylcellulose and an oil component, wherein the oil component comprises a triacylglycerol oil and a polar acylglycerol oil and the amount of ethylcellulose in the composition is in the range of about 1-15 wt%.

19. The composition as defined in claim 18, wherein the amount of ethylcellulose in the composition is in the range of about 5-10 wt%, the oil component is present in a weight ratio of triacylglycerol oil:polar acylglycerol oil of about 40:60 to 60:40 (w/w), the triacylglycerol oil is an oleic acid-containing oil and the polar acylglycerol oil is castor oil.

20. A method of preparing a thixotropic composition as defined in claim 18 comprising:

a) combining ethylcellulose in an amount ranging from 1-15% by weight with an oil component comprising triacylglycerol oil and a polar acylglycerol oil in a weight ratio of triacylglycerol oil:polar acylglycerol oil of about 40:60 to 60:40 (w/w) to form a mixture;

b) heating the mixture until the ethylcellulose is solubilized; and

c) allowing the mixture to cool to form a thixotropic composition.

CLAIMS

1. A thixotropic composition comprising ethylcellulose in combination with a triacylglycerol oil and a non-ionic surfactant, wherein the ethylcellulose concentration is in the range of about 1-15 wt % and the combination of the triacylglycerol oil and surfactant is in the range of about 85-99 wt %, wherein the surfactant to oil ratio is in the range of about 40:60 to 60:40 (w/w) surfactant to oil.

2. The composition of claim 1, wherein the surfactant to oil ratio is in the range of about 45:55 to 55:45 (w/w) surfactant to oil.

3. The composition as defined in claim 1, wherein the oil is a mono-unsaturated triacylglycerol oil.

4. The composition of claim 3, wherein the oil is an oleic acid-containing oil.

5. The composition of claim 1, wherein the oil is selected from the group consisting of high-oleic sunflower, high-oleic & high-stearic sunflower oil, high-oleic soybean, high-oleic canola, high-oleic safflower oil, sunflower oil, safflower oil, soybean oil, algal oil, microbial oil, canola oil, avocado oil, olive oil, medium and short-chain saturated triglyceride oils and mixtures thereof.

6. The composition as defined in claim 1, comprising ethylcellulose having a viscosity selected from the group consisting of 4 cp, 10 cp, 22 cp, 45 cp, 100 cp and 300 cp, or comprising a mixture of ethylcellulose having viscosities selected from the group consisting of 4 cp, 10 cp, 22 cp, 45 cp, 100 cp and 300 cp.

7. The composition as defined in claim 1, wherein the surfactant comprises at least one of myristoleate, palmitoleate, oleate and gadoleate.

8. The composition as defined in claim 1, wherein the surfactant is selected from the

group consisting of polyoxyethylene sorbitan monooleate (Tween 80), sorbitan monooleate (SMO or Span 80), glyceryl monooleate (GMO), glyceryl dioleate, polyglyceryl ester of oleic acid (PGO), polyglyceryl polyoleate (PGPO) and polyglyceryl polyricinoleate (PGPR).

9. The composition as defined in claim 8, wherein the surfactant is GMO.

10. The composition of claim 1, wherein the ethylcellulose concentration is about 5-10%.

11. The composition of claim 1, having an equilibrium viscosity of less than about 100 Pa s.

12. The composition of claim 11, having an equilibrium viscosity of about 2-50 Pa s.

13. The composition of claim 1, wherein the degree of ethoxylation of ethylcellulose is about 25% to about 75%.

14. A method of preparing a thixotropic composition comprising:

a) combining ethylcellulose in an amount ranging from 1-15% by weight with a triacylglycerol oil and a non-ionic surfactant, wherein the combination of the triacylglycerol oil and surfactant is in the range of about 85-99 wt % and wherein the ratio of surfactant to oil is in the range of about 40:60 to 60:40 (w/w) to form a mixture;

b) heating the mixture until the ethylcellulose is solubilized; and

c) allowing the mixture to cool to form a thixotropic composition.

15. The method of claim 14, wherein the surfactant to oil ratio is in the range of about 45:55 to 55:45 (w/w) surfactant to oil.

16. The method as defined in claim 14, wherein the oil is a mono-unsaturated triacylglycerol oil.

17. The method of claim 16, wherein the oil is an oleic acid-containing oil.

18. The method of claim 16, wherein the oil is selected from the group consisting of high-oleic sunflower, high-oleic & high-stearic sunflower oil, high-oleic soybean, high-oleic canola, high-oleic safflower oil, canola oil, avocado oil, olive oil, sunflower oil, safflower oil, soybean oil, algal oil, microbial oil, medium and short-chain saturated triglyceride oils and mixtures thereof.

19. The method as defined in claim 14, wherein the surfactant is selected from the group consisting of polyoxyethylene sorbitan monooleate (Tween 80), sorbitan monooleate (SMO or Span 80), glyceryl monooleate (GMO), glyceryl dioleate (DGO), polyglyceryl ester of oleic acid (PGO), polyglyceryl polyoleate (PGPO) and polyglyceryl polyricinoleate (PGPR).

20. The method of claim 14, wherein the surfactant comprises at least one of myristoleate, palmitoleate, oleate and gadoleate.