WHAT IS CLAIMED IS:

1. A method of producing a composition, the method comprising

contacting a feed stream comprising a biorenewable feedstock with a hydrotreatment catalyst in a fixed bed hydrotreatment reactor to produce a hydrotreated product; and

fractionating the hydrotreated product to produce the composition;

wherein

the biorenewable feedstock comprises at least one of palm kernel oil, coconut oil, babassu oil, microbial oil, or algal oil;

the hydrotreatment catalyst comprises a monometallic Mo catalyst;

the fixed bed hydrotreatment reactor

is at a temperature less than 750 °F; and

is at a pressure from 200 psig to 4,000 psig; and

the composition comprises:

at least 98 wt.% C_7-C_{12} n-paraffins, wherein at least 10 wt. % of the composition comprises n-decane, at least 20 wt. % of the composition comprises n-dodecane, and at least 78 wt. % of the composition comprises even carbon number paraffins;

less than 0.1 wt.% oxygenates; and

less than 0.1 wt. % aromatics.

2. The method of claim 1, wherein the liquid hourly space velocity of the biorenewable feedstock through the fixed bed hydrotreatment reactor is from 0.2 hr^{-1} to 10.0 hr^{-1}.

3. The method of claim 1, wherein the biorenewable feedstock further comprises animal fats, animal oils, plant fats, plant oils, vegetable fats, vegetable oils, or greases.

4. The method of claim 1, wherein the biorenewable feedstock further comprises one or more of animal fats, poultry oil, soybean oil, canola oil, carinata oil, rapeseed oils, palm oil, jatropha oil, castor oil, camelina oil, seaweed oil, halophile oils, rendered fats, restaurant greases, brown grease, yellow grease, waste industrial frying oils, fish oils, tall oil, and tall oil fatty acids.

5. The method of claim 1, wherein the biorenewable feedstock further comprises one or more of carinata oil, animal fats, restaurant greases, brown grease, yellow grease, and waste industrial frying oils.

6. The method of claim 1, wherein the feed stream further comprises a diluent and the volume ratio of diluent to biorenewable feedstock falls within the range from 0.5:1 to 20:1.

7. The method of claim 1, wherein the method comprises fractionating the hydrotreated product to produce the composition and one or more C_{14}-C_{22} n-paraffin fractions comprising at least 90 wt% C_{14}-C_{22} n-paraffins.

8. The method of claim 7, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% C_{14}-C_{16} n-paraffins.

9. The method of claim 7, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% C_{14}-C_{18} n-paraffins

10. The method of claim 7, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% C_{16}-C_{18} n-paraffins

11. The method of claim 7 wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% C_{18}-C_{20} n-paraffins

12. The method of claim 7, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% n-tetradecane.

13. The method of claim 7, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% n-hexadecane.

14. The method of claim 7, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% n-octadecane.

15. The method of claim 7, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% n-icosane.

16. The method of claim 7, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% n-docosane.

17. The method of claim 1, wherein the method comprises fractionating the hydrotreated product to produce the composition and two or more C_{14}-C_{22} n-paraffin fractions, wherein each C_{14}-C_{22} n-paraffin fraction independently comprises at least 90 wt% C_{14}-C_{22} n-paraffins.

18. The method of claim 17, wherein the two or more C_{14}-C_{22} n-paraffin fractions comprise

a fraction comprising at least 90 wt% n-tetradecane;

a fraction comprising at least 90 wt% n-hexadecane; and

a fraction comprising at least 90 wt% n-octadecane.

19. A method of producing a composition, the method comprising

contacting a feed stream comprising a biorenewable feedstock with a hydrotreatment catalyst in a fixed bed hydrotreatment reactor to produce a hydrotreated product; and

fractionating the hydrotreated product to produce the composition;

wherein

the biorenewable feedstock comprises at least one of palm kernel oil, coconut oil, babassu oil, microbial oil, or algal oil;

the fixed bed hydrotreatment reactor

is at a temperature less than 750 °F; and

is at a pressure from 200 psig to 4,000 psig; and

the composition comprises:

at least 98 wt.% C_7-C_{12} n-paraffins, wherein at least 10 wt. % of the composition comprises n-decane, at least 20 wt. % of the composition comprises n-dodecane, and at least 78 wt. % of the composition comprises even carbon number paraffins, and a weight ratio of C_{12} paraffins to C_{11} paraffins from 3.0 : 1 to 1.2 : 1;

less than 0.1 wt.% oxygenates;

less than 0.1 wt. % aromatics; and

the feed stream further comprises a diluent and a volume ratio of diluent to biorenewable feedstock falls within the range from 0.5 : 1 to 20 :1.

20. The method of claim 19, wherein the liquid hourly space velocity of the biorenewable feedstock through the fixed bed hydrotreatment reactor is from 0.2 hr^{-1} to 10.0 hr^{-1}.

21. The method of claim 19, wherein the biorenewable feedstock further comprises animal fats, animal oils, plant fats, plant oils, vegetable fats, vegetable oils, or greases.

22. The method of claim 19, wherein the biorenewable feedstock further comprises one or more of animal fats, poultry oil, soybean oil, canola oil, carinata oil, rapeseed oils, palm oil, jatropha oil, castor oil, camelina oil, seaweed oil, halophile oils, rendered fats, restaurant greases, brown grease, yellow grease, waste industrial frying oils, fish oils, tall oil, and tall oil fatty acids.

23. The method of claim 19, wherein the biorenewable feedstock further comprises one or more of carinata oil, animal fats, restaurant greases, brown grease, yellow grease, and waste industrial frying oils.

24. The method of claim 19, wherein the method comprises fractionating the hydrotreated product to produce the composition and one or more C_{14}-C_{22} n-paraffin fractions comprising at least 90 wt% C_{14}-C_{22} n-paraffins.

25. The method of claim 24, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% C_{14}-C_{16} n-paraffins.

26. The method of claim 24, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% C_{14}-C_{18} n-paraffins

27. The method of claim 24, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% C_{16}-C_{18} n-paraffins

28. The method of claim 24 wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% C_{18}-C_{20} n-paraffins

29. The method of claim 24, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% n-tetradecane.

30. The method of claim 24, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% n-hexadecane.

31. The method of claim 24, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% n-octadecane.

32. The method of claim 24, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% n-icosane.

33. The method of claim 24, wherein the one or more C_{14}-C_{22} n-paraffin fractions comprises a fraction comprising at least 90 wt% n-docosane.

34. The method of claim 1, wherein the method comprises fractionating the hydrotreated product to produce the composition and two or more C_{14}-C_{22} n-paraffin fractions, wherein each C_{14}-C_{22} n-paraffin fraction independently comprises at least 90 wt% C_{14}-C_{22} n-paraffins.

35. The method of claim 34, wherein the two or more C_{14}-C_{22} n-paraffin fractions comprise

a fraction comprising at least 90 wt% n-tetradecane;

a fraction comprising at least 90 wt% n-hexadecane; and

a fraction comprising at least 90 wt% n-octadecane