CLAIMS

1. A composition comprising:

an aqueous phase comprising an aqueous carrier fluid;

a neutral surfactant or a reaction product thereof; and

a reaction product of a saccharide polymer and a fatty acid, the saccharide polymer comprising a dextran, a dextrin compound, or any combination thereof, wherein the fatty acid consists of one or more straight chain fatty acids comprising about 4 to about 30 carbon atoms;

wherein the neutral surfactant or the reaction product thereof and the reaction product of the saccharide polymer and the fatty acid are dissolved as a solution in the aqueous phase; and

wherein the reaction product of the saccharide polymer and the fatty acid is present at a concentration effective to lower a surface tension of the neutral surfactant in the aqueous phase.

2. The composition of claim 1, wherein the saccharide polymer comprises a dextrin compound and the dextrin compound comprises a maltodextrin.

3. The composition of claim 1 or claim 2, wherein the fatty acid comprises at least one fatty acid selected from the group consisting of butyric acid, valeric acid, caproic acid, enanthic acid, caprylic acid, pelabonic acid, capric acid, undecylic acid, lauric acid, tridecylic acid, myristic acid, pentadecylic acid, palmitic acid, margaric acid, stearic acid, nonadecylic acid, arachidic acid, heneicosylic acid, behenic acid, trioscylic acid, lignoceric acid, pentacosylic acid, cerotic acid, carboceric acid, montanic acid, nonacosylic acid, melissic acid, crotonic acid, cervonic acid, linoleic acid, linolelaidic acid, linolenic acid, arachidonic acid, docosatetraenoic acid, myristoleic acid, palmitoleic acid, sappenic acid, vaccenic acid, paullinic acid, oleic acid, pinolenic acid, stearidonic acid, eleostearic acid, elaidic acid, gondoic acid, gadoleic acid, erucic acid, eicosenoic acid, eicosadiencoic acid, eicosatrienoic acid, eicosatetraenoic acid, docosadienoic acid, nervonic acid, mead acid, adrenic acid, and any combination thereof.

4. The composition of any one of claims 1 to 3, wherein the neutral surfactant comprises cocamide diethanolamine or a reaction product thereof.

5. The composition of any one of claims 1 to 4, wherein the reaction product of the saccharide polymer and the fatty acid is formed in the presence of the neutral surfactant.

6. The composition of any one of claims 1 to 5, wherein a molar ratio of fatty acid to saccharide polymer in the reaction product is about 0.2 or above on a basis of $moles_{fatty\ acid}$:$moles_{glucose\ monomers}$.

7. The composition of any one of claims 1 to 6, wherein the reaction product of the saccharide polymer is obtained in the presence of water and a hydroxide base.

8. The composition of any one of claims 1 to 7, wherein the reaction product of the saccharide polymer comprises a fatty ester reaction product.

9. The composition of any one of claims 1 to 8, wherein a molar ratio of fatty acid to saccharide polymer in the reaction product is about 0.2 to about 1.0 on a basis of $moles_{fatty\ acid}$:$moles_{glucose\ monomers}$.

10. A foamable formulation comprising the composition of any one of claims 1 to 9.

11. The foamable formulation of claim 10, wherein the foamable formulation comprises a soap.

12. A method comprising:

providing an aqueous fluid comprising the composition of any one of claims 1 to 9; and

inducing foam formation in the aqueous fluid.

13. The method of claim 12, wherein inducing foam formation comprises agitating the aqueous fluid to introduce gas thereto as a plurality of bubbles.

14. A composition comprising:

an aqueous phase comprising an aqueous carrier fluid;

a neutral surfactant or a reaction product thereof; and

a reaction product of a saccharide polymer and a fatty acid, the saccharide polymer comprising a dextran, a dextrin compound, or any combination thereof, and a molar ratio of fatty acid to saccharide polymer in the reaction product is about 0.05 to 0.8 on a basis of $moles_{fatty\ acid}$: $moles_{glucose\ monomers}$;

wherein the neutral surfactant or the reaction product thereof and the reaction product of the saccharide polymer and the fatty acid are dissolved as a solution in the aqueous phase; and

wherein the reaction product of the saccharide polymer and the fatty acid is present at a concentration effective to lower a surface tension of the neutral surfactant in the aqueous phase.

15. The composition of claim 14, wherein the saccharide polymer comprises a dextrin compound and the dextrin compound comprises a maltodextrin.

16. The composition of claim 14 or claim 15, wherein the fatty acid comprises about 4 to about 30 carbon atoms.

17. The composition of any one of claims 14 to 16, wherein the fatty acid comprises at least one fatty acid selected from the group consisting of butyric acid, valeric acid, caproic acid, enanthic acid, caprylic acid, pelabonic acid, capric acid, undecylic acid, lauric acid, tridecylic acid, myristic acid, pentadecylic acid, palmitic acid, margaric acid, stearic acid, nonadecylic acid, arachidic acid, heneicosylic acid, behenic acid, trioscylic acid, lignoceric acid, pentacosylic acid, cerotic acid, carboceric acid, montanic acid, nonacosylic acid, melissic acid, crotonic acid, cervonic acid, linoleic acid, linolelaidic acid, linolenic acid, arachidonic acid, docosatetraenoic acid, myristoleic acid, palmitoleic acid, sappenic acid, vaccenic acid, paullinic acid, oleic acid, pinolenic acid, stearidonic acid, eleostearic acid, elaidic acid, gondoic acid, gadoleic acid, erucic acid, eicosenoic acid, eicosadiencoic acid, eicosatrienoic acid, eicosatetraenoic acid, docosadienoic acid, nervonic acid, mead acid, adrenic acid, and any combination thereof.

18. The composition of any one of claims 14 to 17, wherein the neutral surfactant comprises a fatty acid alkanolamide or a reaction product thereof.

19. The composition of any one of claims 14 to 18, wherein the reaction product of the saccharide polymer and the fatty acid is formed in the presence of the neutral surfactant.

20. The composition of any one of claims 14 to 19, wherein a molar ratio of fatty acid to saccharide polymer in the reaction product is about 0.2 to 0.8 on a basis of $moles_{fatty\ acid}$: $moles_{glucose\ monomers}$.

21. The composition of any one of claims 14 to 20, wherein the fatty acid consists of one or more straight chain fatty acids comprising about 4 to about 30 carbon atoms.

22. The composition of any one of claims 14 to 21, wherein the reaction product of the saccharide polymer is obtained in the presence of water and a hydroxide base.

23. The composition of claim 22, further comprising:

a fatty acid carboxylate.

24. The composition of claim 23, wherein the fatty acid carboxylate comprises an alkali metal carboxylate.

25. The composition of any one of claims 22 to 24, wherein the reaction product of the saccharide polymer comprises a fatty ester reaction product.

26. The composition of any one of claims 22 to 25, wherein the fatty acid consists of one or more straight chain fatty acids comprising about 4 to about 30 carbon atoms.

27. The composition of any one of claims 14 to 21, further comprising:

a fatty acid carboxylate.

28. The composition of any one of claims 14 to 27, further comprising:

a zwitterionic surfactant.

29. The composition of any one of claims 14 to 28, wherein the aqueous carrier fluid comprises an aqueous salt solution.

30. A treatment fluid comprising the composition of any one of claims 14 to 29.

31. A method comprising:

providing a treatment fluid comprising the composition of any one of claims 14 to 29; and

introducing the treatment fluid into a subterranean formation.

32. A composition comprising:

an aqueous phase comprising an aqueous carrier fluid;

a zwitterionic surfactant;

a neutral surfactant or a reaction product thereof; and

a reaction product of a saccharide polymer and a fatty acid, the saccharide polymer comprising a dextran, a dextrin compound, or any combination thereof, wherein the fatty add consists of one or more straight chain fatty acids comprising about 4 to about 30 carbon atoms;

wherein the neutral surfactant or the reaction product thereof and the reaction product of the saccharide polymer and the fatty acid are dissolved as a solution in the aqueous phase.