CLAIMS

What is claimed is:

1. A softening composition comprising:

(a) a fermented fruit solution wherein the total acid content of the fermented fruit solution is greater than or equal to 2.0%, the fermented fruit solution prepared by fermenting a pre-fermented fruit solution fermented with lactic acid bacteria, wherein the pre-fermented fruit solution comprises:

(i) about 2 to about 20 weight percent of a sugar based on the total weight of the pre-fermented fruit solution,

(ii) about 20 to about 50 weight percent of a fruit puree based on the total weight of the pre-fermented fruit solution, wherein the fruit is more than 90% pineapple,

(iii) about 30 to about 75 weight percent of a water based on the total weight of the pre-fermented fruit solution,

wherein a brix level of the pre-fermented fruit solution is about 12% to about 24%, and wherein a pH of the pre-fermented fruit solution is about 5.5 to about 9.0, and

(b) one or more softening agents wherein the one or more softening agents does not include a quaternary ammonium compound and is present in an amount of about 2 to about 18 weight percent based on the total weight of the composition.

2. The softening composition of claim 1, wherein the one or more softening agents is selected from the group consisting of soy lecithin, oleic acid, glycerol and mixtures thereof.

3. The softening composition of claims 1-2, wherein the total weight percent of the one or more softening agents is about 3 to about 12.5 weight percent based on the total weight of the composition.

4. The softening composition of claims 1-3, wherein the total weight percent of the one or more softening agents is about 5.5 to about 10 weight percent based on the total weight of the composition.

5. The softening composition of claims 1-2, wherein the one or more softening agents consists of soy lecithin in an amount of about 1 to about 3 weight percent based on the total weight of the composition, oleic acid in an amount of about 1 to about 5 weight percent based on the total weight of the composition, and glycerol in an amount of about 1 to about 10 weight percent based on the total weight of the composition.

6. The softening composition of claims 1-3, wherein the one or more softening agents consists of soy lecithin in an amount of about 1 to about 2.5 weight percent based on the total weight of the composition, oleic acid in an amount of about 1 to about 3 weight percent based on the total weight of the composition, and glycerol in an amount of about 1 to about 7 weight percent based on the total weight of the composition.

7. The softening composition of claims 1-4, wherein the one or more softening agents consists of soy lecithin in an amount of about 1.5 to about 2 weight percent based on the total weight of the composition, oleic acid in an amount of about 2 to about 3 weight percent based on

the total weight of the composition, and glycerol in an amount of about 2 to about 5 weight percent based on the total weight of the composition.

8. The softening composition of claims 1-7 further comprising:

at least one anti-oxidant agent;

at least one emulsifier;

at least one pH adjusting agent; and

at least one thickener;

9. The softening composition of claim 8, wherein the at least one anti-oxidant agent is present in an amount of about 0.2 to about 1 weight percent based on the total weight of the composition.

10. The softening composition of claims 8-9, wherein the at least one anti-oxidant agent is vitamin E.

11. The softening composition of claim 8-10, wherein the at least one emulsifier is present in an amount of about 2 to about 5 weight percent based on the total weight of the composition.

12. The softening composition of claims 8-11, wherein the at least one emulsifier is selected from the group consisting of PEG-60 hydrogenated castor oil, polyoxyethylene (20) sorbitan monooleate, sorbitan monooleate, and mixtures thereof.

13. The softening composition of claims 8-12, wherein the at least one pH adjusting agent is present in an amount of about 2 to about 5 weight percent based on the total weight of the composition.

14. The softening composition of claims 8-13, wherein the at least one pH adjusting agent is selected from the group consisting of citric acid, lactic acid and mixtures thereof.

15. The softening composition of claims 8-14, wherein the at least one thickener is present in an amount of about 0.1 to about 2 weight percent based on the total weight of the composition.

16. The softening composition of claims 8-15, wherein the at least one thickener is selected from the group consisting of sodium chloride, natural gums including guar gum, xanthan gum and gum arabic, and mixtures thereof.

17. The softening composition of claims 1-16 further comprising:

at least one corrosion inhibitor.

18. The softening composition of claim 17, wherein the at least one corrosion inhibitor is present in an amount of about 0.1 to about 2.5 weight percent based on the total weight of the composition.

19. The softening composition of claims 17-18, wherein the at least one corrosion inhibitor is selected from the group consisting of gum arabic, sodium polyaspartate and mixtures thereof.

20. The softening composition of claims 1-19 further comprising:

a preservative.

21. The softening composition of claim 20, wherein the preservative is selected from the group consisting of boric acid, benzoic acid, potassium sorbate, nisin, natamycin and mixtures thereof and, if the preservative is boric acid, it is present in an amount not greater than about 2 weight percent based on the total weight of the composition, and if the preservative is not boric acid, it is present in an amount not greater than about 1 weight percent based on the total weight of the composition.

22. The softening composition of claims 20-21, wherein the preservative is selected from the group consisting of potassium sorbate, nisin, natamycin and mixtures thereof.

23. The softening composition of claims 1-22 further comprising:

at least one selected from the group consisting of an essential oil and a fragrance.

24. A method of making the softening composition of claim 1, comprising:

preparing a pre-fermented fruit solution with a brix level of about 12% to about 24% and a pH of about 5.5 to about 9.0, the pre-fermented fruit solution comprising:

(i) about 2 to about 20 weight percent of a sugar based on the total weight of the pre-fermented fruit solution;

(ii) about 20 to about 50 weight percent of a fruit puree based on the total weight of the pre-fermented fruit solution, wherein the fruit is more than 90% pineapple;

(iii) about 30 to about 75 weight percent of a water based on the total weight of the pre-fermented fruit solution,

fermenting the pre-fermented fruit solution with lactic acid bacteria to create a fermented fruit solution with a total acid content of greater than or equal to 2.0%; and

mixing the fermented fruit solution with one or more softening agents, wherein the total weight percent of the one or more softening agents is used in an amount of about 2 to about 18 weight percent based on the total weight of the composition.

25. The method of claim 24, wherein the one or more softening agents is selected from the group consisting of soy lecithin, oleic acid, glycerol, and mixtures thereof.

26. The method of claims 24-25, wherein the total weight percent of the one or more softening agents is about 3 to about 12.5 weight percent based on the total weight of the composition.

27. The method of claims 24-26, wherein the total weight percent of the one or more softening agents is about 5.5 to about 10 weight percent based on the total weight of the composition.

28. The method of claims 24-25, wherein the one or more softening agents consists of soy lecithin in an amount of about 1 to about 3 weight percent based on the total weight of the

composition, oleic acid in an amount of about 1 to about 5 weight percent based on the total weight of the composition, and glycerol in an amount of about 1 to about 10 weight percent based on the total weight of the composition.

29. The method of claims 24-26, wherein the one or more softening agents consists of soy lecithin in an amount of about 1 to about 2.5 weight percent based on the total weight of the composition, oleic acid in an amount of about 1 to about 3 weight percent based on the total weight of the composition, and glycerol in an amount of about 1 to about 7 weight percent based on the total weight of the composition.

30. The method of claims 24-27, wherein the one or more softening agents consists of soy lecithin in an amount of about 1.5 to about 2 weight percent based on the total weight of the composition, oleic acid in an amount of about 2 to about 3 weight percent based on the total weight of the composition, and glycerol in an amount of about 2 to about 5 weight percent based on the total weight of the composition.

31. A method of making the softening composition of claim 8, comprising:
preparing a pre-fermented fruit solution with a brix level of about 12% to about 24% and a pH of about 5.5 to about 9.0, the pre-fermented fruit solution comprising:

(i) about 2 to about 20 weight percent of a sugar based on the total weight of the pre-fermented fruit solution;

(ii) about 20 to about 50 weight percent of a fruit puree based on the total weight of the pre-fermented fruit solution, wherein the fruit is more than 90% pineapple;

(iii) about 30 to about 75 weight percent of a water based on the total weight of the pre-fermented fruit solution,

fermenting the pre-fermented fruit solution with lactic acid bacteria to create a fermented fruit solution with a total acid content of greater than or equal to 2.0%;

mixing the fermented fruit solution with one or more softening agents, wherein the total weight percent of the one or more softening agents is about 2 to about 18 weight percent based on the total weight of the composition;

adding at least one antioxidant;

adding at least one emulsifier;

adding at least one pH adjusting agent; and

adding a mixture of at least one thickener.

32. The method of claim 31, wherein the one or more softening agents is selected from the group consisting of soy lecithin, oleic acid, glycerol, and mixtures thereof.

33. The method of claims 31-32, wherein the total weight percent of the one or more softening agents is about 3 to about 12.5 weight percent based on the total weight of the composition.

34. The method of claims 31-33, wherein the total weight percent of the one or more softening agents is about 5.5 to about 10 weight percent based on the total weight of the composition.

35. The method of claims 31-32, wherein the one or more softening agents consists of soy lecithin in an amount of about 1 to about 3 weight percent based on the total weight of the composition, oleic acid in an amount of about 1 to about 5 weight percent based on the total weight of the composition, and glycerol in an amount of about 1 to about 10 weight percent based on the total weight of the composition.

36. The method of claims 31-33, wherein the one or more softening agents consists of soy lecithin in an amount of about 1 to about 2.5 weight percent based on the total weight of the composition, oleic acid in an amount of about 1 to about 3 weight percent based on the total weight of the composition, and glycerol in an amount of about 1 to about 7 weight percent based on the total weight of the composition.

37. The method of claims 31-34, wherein the one or more softening agents consists of soy lecithin in an amount of about 1.5 to about 2 weight percent based on the total weight of the composition, oleic acid in an amount of about 2 to about 3 weight percent based on the total weight of the composition, and glycerol in an amount of about 2 to about 5 weight percent based on the total weight of the composition.

38. The method of claims 31 - 37, wherein the at least one antioxidant agent is used in an amount of about 0.2 to about 1 weight percent based on the total weight of the composition.

39. The method of claims 31 - 38, wherein the antioxidant agent is vitamin E.

40. The method of claims 31 - 39, wherein the at least one emulsifier is used in an amount of about 2 to about 5 weight percent based on the total weight of the composition.

41. The method of claims 31 - 40, wherein the at least one emulsifier is selected from the group consisting of PEG-60 hydrogenated castor oil, polyoxyethylene (20) sorbitan monooleate, sorbitan monooleate, and mixtures thereof.

42. The method of claims 31 - 41 wherein the at least one pH adjusting agent is selected from the group consisting of citric acid, lactic acid, and mixtures thereof.

43. The method of claims 31 - 42, wherein the at least one pH adjusting agent is used in an amount of about 2 to about 5 weight percent based on the total weight of the composition.

44. The method of claim 31 - 43, wherein the at least one thickener is used in an amount of about 0.1 to about 2 weight percent based on the total weight of the composition.

45. The method of claim 31 - 44, wherein the at least one thickener is selected from the group consisting of sodium chloride, natural gums, including guar gum, xanthan gum and gum arabic, and mixtures thereof.

46. The method of claims 31-45 further comprising:

adding at least one preservative.

47. The method of claim 46, wherein the preservative is selected from the group consisting of boric acid, benzoic acid, potassium sorbate, nisin, natamycin and mixtures thereof, and, if the preservative is boric acid it is used in an amount not greater than about 2 weight percent based on the total weight of the composition, and if the preservative is not boric acid, it is used in an amount not greater than about 1 weight percent based on the total weight of the composition.

48. The method of claims 46-47, wherein the preservative is selected from the group consisting of potassium sorbate, nisin, natamycin and mixtures thereof, and is used in an amount not greater than about 1 weight percent based on the total weight of the composition.

49. The method of claims 31-48, further comprising:

adding at least one corrosion inhibitor.

50. The method of claim 49, wherein the at least one corrosion inhibitor is used in an amount of about 0.1 to about 2.5 weight percent based on the total weight of the composition.

51. The method of claims 49-50, wherein the at least one corrosion inhibitor is selected from the group consisting of gum arabic, sodium polyaspartate and mixtures thereof.

52. The method of claims 24-51 further comprising:

adding at least one selected from the group consisting of an essential oil and a fragrance

53. A method of softening an article with the softening composition of claim 1, the method comprising:

softening an article with the softening composition.

What is claimed is:

1. A softening composition comprising:

(a) a fermented fruit solution wherein the total acid content of the fermented fruit solution is greater than or equal to 2.0%, the fermented fruit solution prepared by fermenting a pre-fermented fruit solution with lactic acid bacteria, wherein the pre-fermented fruit solution comprises:

(i) about 2 to about 20 weight percent of a sugar based on the total weight of the pre-fermented fruit solution,

(ii) about 20 to about 50 weight percent of a fruit puree based on the total weight of the pre-fermented fruit solution, wherein the fruit is more than 90% pineapple,

(iii) about 30 to about 75 weight percent of a water based on the total weight of the pre-fermented fruit solution,

wherein a brix level of the pre-fermented fruit solution is about 12% to about 24%, and

(b) an amount of about 2 to about 18 weight percent based on the total weight of the composition of soy lecithin, oleic acid, glycerol, or a mixture thereof.

2. The softening composition of claim 1, wherein the composition comprises soy lecithin and glycerol.

3. The softening composition of claim 1, wherein the total weight percent of soy lecithin, oleic acid, glycerol, or a mixture thereof is about 3 to about 12.5 weight percent based on the total weight of the composition.

4. The softening composition of claim 3, wherein the total weight percent of soy lecithin, oleic acid, glycerol, or a mixture thereof is about 5.5 to about 10 weight percent based on the total weight of the composition.

5. The softening composition of claim 1, wherein the composition comprises soy lecithin in an amount of about 1 to about 3 weight percent based on the total weight of the composition and glycerol in an amount of about 1 to about 10 weight percent based on the total weight of the composition.

6. The softening composition of claim 5, wherein the composition comprises soy lecithin in an amount of about 1 to about 2.5 weight percent based on the total weight of the composition and glycerol in an amount of about 1 to about 7 weight percent based on the total weight of the composition.

7. The softening composition of claim 6, wherein the composition comprises soy lecithin in an amount of about 1.5 to about 2 weight percent based on the total weight of the composition and glycerol in an amount of about 2 to about 5 weight percent based on the total weight of the composition.

8. The softening composition of claim 1 further comprising:
at least one anti-oxidant agent;
at least one emulsifier;
at least one pH adjusting agent; and
at least one thickener.

9. The softening composition of claim 8, wherein the at least one anti-oxidant agent is present in an amount of about 0.2 to about 1 weight percent based on the total weight of the composition.

10. The softening composition of claim 8, wherein the at least one anti-oxidant agent is vitamin E.

11. The softening composition of claim 8, wherein the at least one emulsifier is present in an amount of about 2 to about 5 weight percent based on the total weight of the composition.

12. The softening composition of claim 8, wherein the at least one emulsifier is selected from the group consisting of PEG-60 hydrogenated castor oil, polyoxyethylene (20) sorbitan monooleate, sorbitan monooleate, and mixtures thereof.

13. The softening composition of claim 8, wherein the at least one pH adjusting agent is present in an amount of about 2 to about 5 weight percent based on the total weight of the composition.

14. The softening composition of claim 8, wherein the at least one pH adjusting agent is selected from the group consisting of citric acid, lactic acid and mixtures thereof.

15. The softening composition of claim 8, wherein the at least one thickener is present in an amount of about 0.1 to about 2 weight percent based on the total weight of the composition.

16. The softening composition of claim 8, wherein the at least one thickener is selected from the group consisting of sodium chloride, natural gums including guar gum, xanthan gum and gum arabic, and mixtures thereof.

17. The softening composition of claim 1 further comprising:
at least one corrosion inhibitor.

18. The softening composition of claim 17, wherein the at least one corrosion inhibitor is present in an amount of about 0.1 to about 2.5 weight percent based on the total weight of the composition.

19. The softening composition of claim 17, wherein the at least one corrosion inhibitor is selected from the group consisting of gum arabic, sodium polyaspartate and mixtures thereof.

20. The softening composition of claim 1 further comprising:
a preservative.

21. The softening composition of claim 20, wherein the preservative is selected from the group consisting of boric acid, benzoic acid, potassium sorbate, nisin, natamycin and mixtures thereof and, if the preservative is boric acid, it is present in an amount not greater than about 2 weight percent based on the total weight of the composition, and if the preservative is not boric

acid, it is present in an amount not greater than about 1 weight percent based on the total weight of the composition.

22. The softening composition of claim 20, wherein the preservative is selected from the group consisting of potassium sorbate, nisin, natamycin and mixtures thereof.

23. The softening composition of claim 1 further comprising:
at least one selected from the group consisting of an essential oil and a fragrance.