

I claim:

1. A palatable food composition for human consumption comprising all the essential amino acids in aqueous solution, said solution containing said essential amino acids in an amount of at least about 3 grams per liter, said solution containing at least about 0.26 gram per liter of methionine and containing methyl mercaptan in an amount not greater than about 15 mg. per liter, said solution containing a dissolved carbohydrate selected from the group consisting of monosaccharides, disaccharides, starches, dextrans and mixtures thereof in an amount of at least about 100 grams per liter, and said solution also including nutritionally significant amounts of the following ions: sodium, magnesium, potassium, iron, calcium, chloride and phosphate.

2. A food composition in accordance with claim 1 wherein the pH of said aqueous solution is between about 3 and about 4.

3. A food composition in accordance with claim 1 wherein the pH of said aqueous solution is in the range between about 3.4 and about 5.7.

4. A food composition in accordance with claim 1 wherein nonessential amino acids are present in an amount of at least about 3 grams per liter, said solution containing sulfhydryl groups in an amount not greater than about 0.05 gram per liter and said solution containing glutamic acid in an amount not greater than about 1.43 grams per liter.

5. A food composition in accordance with claim 4 wherein the pH of said aqueous solution is in the range between about 3.4 and about 5.7.

6. A food composition in accordance with claim 1 wherein said essential amino acids are present in at least about the following amounts per liter: arginine 0.61 g., histidine 0.17 g., isoleucine 0.26 g., leucine 0.41 g., lysine 0.38 g., phenylalanine 0.20 g., threonine 0.26 g., tryptophan 0.08 g., and valine 0.28 g.

7. A food composition in accordance with claim 1 wherein said ions are present in at least the following amount in concentrations of grams per liter: sodium 57 mg., magnesium 28.5 mg., potassium 285 mg., iron 2.85 mg., calcium 140 mg., chloride 0.2 g., and phosphorus 140 mg.

8. A food composition in accordance with claim 1 wherein said solution contains glucose as at least the major portion of said dissolved carbohydrate.

9. A food composition in accordance with claim 6 which has a caloric value of at least about one-half calorie per milliliter.

10. A food composition in accordance with claim 9 wherein said aqueous solution includes said amino acids in the following amounts per liter, plus or minus about 5 percent: arginine 2.16 g., histidine 0.60 g., isoleucine 0.92 g., leucine 1.45 g., lysine 1.36 g., methionine 0.94 g., phenylalanine 1.04 g., threonine 0.92 g., tryptophan 0.28 g., and valine 1.01 g.

11. A food composition in accordance with claim 10 wherein said aqueous solution includes non-essential amino acids in the following amounts per liter, plus or minus about 5 percent: alanine 0.98 g., aspartic acid 2.08 g., glycine 1.50 g., glutamine 3.44 g., proline 1.31 g., serine 0.67 g. and tyrosine 1.55 g.

12. A food composition in accordance with claim 10 wherein said aqueous solution contains a carbohydrate selected from the group consisting of glucose, maltose, starches, dextrans and mixtures thereof in an amount of about 222 grams per liter, plus or minus about 5 percent.

13. A food composition in accordance with claim 10 wherein said aqueous solution includes the following compounds in the amounts stated, plus or minus about 5 percent, per liter: hydrated calcium chloride 1.63 g., hydrated cupric acetate 3.45 mg., hydrated ferrous ammonium sulfate 3.9 mg., magnesium oxide 143 mg., hydrated manganese acetate 6.94 mg., potassium chloride 1.29 g., potas-

sium hydroxide 0.71 g., potassium iodide 0.1 mg., sodium chloride 0.67 g., hydrated sodium glycerophosphate 4.50 g., sodium hydroxide 0.63 g., zinc chloride 0.47 mg., acetic acid 3.31 mg., glucono-delta-lactone 3.50 g.

14. A food composition in accordance with claim 10 wherein said aqueous solution includes the following water-soluble vitamins in the stated amounts, plus or minus about 5 percent, per liter: potassium salt of p-aminobenzoic acid 197 mg., ascorbic acid 38.9 mg., d-biotin 0.11 mg., d-calcium pantothenate 5.5 mg., choline chloride 46.8 mg., folic acid 0.06 mg., inositol 64.8 mg., niacinamide 7.4 mg., pyridoxine·HCl 1.1 mg., sodium salt of riboflavin phosphate 0.91 mg., thiamine·HCl 0.7 mg., and cyanocobalamin 2.8 mcg.

15. A food composition in accordance with claim 10 which includes, in the form of an emulsion with said aqueous solution, the following substances in the stated amounts, plus or minus about 5 percent, per liter: purified safflower oil or ethyl linoleate 0.74 g. and polyoxyethylene sorbitan monooleate 37 mg.

16. A food composition in accordance with claim 15 wherein said emulsion contains the following fat-soluble vitamins in the stated amounts, plus or minus about 5 percent, per liter: Vitamin A acetate 0.96 mg., Vitamin D 5.5 mcg., alpha-tocopherol acetate 11.1 mg., and menadione 0.07 mg.

17. A substantially dry palatable food composition for human consumption comprising all the essential amino acids, a water-soluble carbohydrate selected from the group consisting of mono-saccharides, disaccharides, starches, dextrans and mixtures thereof, in an amount at least about twice the weight of said essential amino acids, and water-soluble salts including nutritionally significant amounts of the following anions and cations: sodium, magnesium, potassium, iron, calcium, chloride and phosphate, said amino acids, water-soluble carbohydrate and water-soluble salts being soluble in water to provide a solution, a liter of which solution containing at least about 3 grams of said essential amino acids, contains including at least about 0.26 gram of methionine which contains methyl mercaptan in an amount not greater than about 15 mg.

18. A food composition in accordance with claim 17 which contains a sufficient amount of an organic acid so that said aqueous solution would have a pH between about 3 and 4.

19. A food composition in accordance with claim 17 which contains a sufficient amount of an organic acid so that said aqueous solution would have a pH in the range between about 3.4 and about 5.7.

20. A food composition in accordance with claim 17 which also includes non-essential amino acids, said non-essential amino acids being present in a amount at least about equal in weight to said essential amino acids, said non-essential amino acids being limited in the amounts of cystine, cysteine and glutamic acid contained so that upon dissolution said liter of solution contains sulfhydryl groups in an amount not greater than about 0.05 gram and contains glutamic acid in an amount not greater than about 1.43 grams.

21. A food composition in accordance with claim 20 which contains a sufficient amount of an organic acid so that said aqueous solution would have a pH in the range between about 3.4 and about 5.7.

22. A food composition in accordance with claim 17 wherein said essential amino acids are so balanced that said at least three grams of said essential amino acids in said liter of solution are present in at least about the following amounts: arginine 0.6 g., histidine 0.17 g., isoleucine 0.26 g., leucine 0.41 g., lysine 0.38 g., methionine 0.26 g., phenylalanine 0.29 g., threonine 0.26 g., tryptophan 0.08 g., and valine 0.28 g.

23. A food composition in accordance with claim 17 wherein said ions are present in sufficient amounts to