What is claimed is:

1. A pharmaceutical composition of gamma-hydroxybutyrate (GHB) comprising a mixture of salts of GHB, wherein the mixture comprises three or more salts selected from the group consisting of a sodium salt of gamma-hydroxybutyrate (Na•GHB), a potassium salt of gamma-hydroxybutyrate (K•GHB), a magnesium salt of gamma-hydroxybutyrate (Mg•$(GHB)_2$), and a calcium salt of gamma-hydroxybutyrate (Ca•$(GHB)_2$).

2. The pharmaceutical composition of claim 1, wherein the mixture comprises Na•GHB, K•GHB, Mg•$(GHB)_2$, and Ca•$(GHB)_2$.

3. The pharmaceutical composition of claim 2, wherein the Na•GHB salt is present in a wt/wt % of about 5% to about 10%, about 10% to about 15%, about 15% to about 20%, about 20% to about 25%, about 25% to about 30%, about 30% to about 35%, or about 35% to about 40%.

4. The pharmaceutical composition of claim 2, wherein the K•GHB salt is present in a wt/wt % of about 10% to about 15%, about 15% to about 20%, about 20% to about 25%, about 25% to about 30%, about 30% to about 35%, or about 35% to about 40%.

5. The pharmaceutical composition of claim 2, wherein the Mg•$(GHB)_2$ salt is present in a wt/wt % of about 5% to about 10%, about 10% to about 15%, about 15% to about 20%, about 20% to about 25%, or about 25% to about 30%.

6. The pharmaceutical composition of claim 2, wherein the Ca•$(GHB)_2$ salt is present in a wt/wt % of about 20% to about 25%, about 25% to about 30%, about 30% to about 35%, about 35% to about 40%, about 40% to about 45%, about 45% to about 50%, about 50% to about 55%, about 55% to about 60%, about 60% to about 65%, about 65% to about 70%, about 70% to about 75%, or about 75% to about 80%.

7. The pharmaceutical composition of claim 2, wherein the Na•GHB salt is present in a wt/wt % of about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, or about 40%.

8. The pharmaceutical composition of claim 2, wherein the K•GHB salt is present in a wt/wt % of about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, or about 40%.

9. The pharmaceutical composition of claim 2, wherein the Mg•$(GHB)_2$ salt is present in a wt/wt % of about 5%, about 10%, about 15%, about 20%, about 25%, or about 30%.

10. The pharmaceutical composition of claim 2, wherein the Ca•$(GHB)_2$ salt is present in a wt/wt % of about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, or about 80%.

11. The pharmaceutical composition of claim 2, wherein the Na•GHB salt is present in a wt/wt % of about 5% to about 40%, the K•GHB salt is present in a wt/wt % of about 10% to about 40%, the Mg•$(GHB)_2$ salt is present in a wt/wt % of about 5% to about 30%, and the Ca•$(GHB)_2$ salt is present in a wt/wt % of about 20% to about 80%.

12. The pharmaceutical composition of claim 2, wherein the Na•GHB, K•GHB, Mg•$(GHB)_2$, and Ca•$(GHB)_2$ salts are present in a wt/wt % ratio of about 8%:32%:20%:40%, respectively.

13. The pharmaceutical composition of claim 2, wherein the Na•GHB, K•GHB, Mg•$(GHB)_2$, and Ca•$(GHB)_2$ salts are present in a wt/wt % ratio of about 29%:31%:13%:27%, respectively.

14. The pharmaceutical composition of claim 2, wherein the Na•GHB, K•GHB, Mg•$(GHB)_2$, and Ca•$(GHB)_2$ salts are present in a wt/wt % ratio of about 8%:23%:21%:48%, respectively.

15. The pharmaceutical composition of claim 1, wherein the mixture comprises Na•GHB, K•GHB, and Ca•$(GHB)_2$.

16. The pharmaceutical composition of claim 15, wherein the Na•GHB salt is present in a wt/wt % of about 5% to about 40%, the K•GHB salt is present in a wt/wt % of about 10% to about 40%, and the Ca•$(GHB)_2$ salt is present in a wt/wt % of about 20% to about 80%.

17. The pharmaceutical composition of claim 15, wherein the Na•GHB, K•GHB, and Ca•$(GHB)_2$ salts are present in a wt/wt % ratio of about 11%:39%:50%, respectively.

18. The pharmaceutical composition of claim 1, wherein the mixture comprises K•GHB, Mg•$(GHB)_2$, and Ca•$(GHB)_2$.

19. The pharmaceutical composition of claim 18, wherein the K•GHB salt is present in a wt/wt % of about 10% to about 50%, the Mg•$(GHB)_2$ salt is present in a wt/wt % of about 20% to about 60%, and the Ca•$(GHB)_2$ salt is present in a wt/wt % of about 10% to about 40%.

20. The pharmaceutical composition of claim 19, wherein the K•GHB, Mg•$(GHB)_2$ and Ca•$(GHB)_2$ salts are present in a wt/wt % ratio of about 33%:42%:25%, respectively.

21. The pharmaceutical composition of claim 1, comprising an aqueous solution of about 250 mg/mL to about 750 mg/mL of the mixture of salts of GHB, wherein the composition has a pH of about 7.0 to about 9.0, wherein the composition is chemically stable and resistant to microbial growth, and wherein the composition is free of preservatives.

22. The pharmaceutical composition of claim 21, wherein the composition has a pH of about 7.3 to about 8.5.

23. The pharmaceutical composition of claim 21, wherein the composition additionally comprises a pH adjusting or buffering agent.

24. The pharmaceutical composition of claim 23, wherein the pH adjusting or buffering agent is an acid.

25. The pharmaceutical composition of claim 24, wherein the acid is an inorganic acid or an organic acid, wherein the acid is selected from the group consisting of malic acid, citric acid, acetic acid, boric acid, lactic acid, hydrochloric acid, phosphoric acid, sulfuric acid, sulfonic acid, and nitric acid.

26. The pharmaceutical composition of claim 25, wherein the acid is malic acid.

27. The pharmaceutical composition of claim 1, wherein the composition is formulated as a liquid formulation.

28. The formulation of claim 27, wherein the formulation is chemically stable and resistant to microbial growth, and wherein the formulation is free of preservatives.

29. The formulation of claim 27, which is suitable for oral administration.

30. A pharmaceutical composition in accordance with claim 27, wherein the concentration of the GHB is between 300 mg/ml to 750 mg/ml.

31. A pharmaceutical composition in accordance with claim 27, wherein the concentration of the GHB is between 400 mg/ml to 600 mg/ml.

32. The pharmaceutical composition of claim 1, further comprising one or more of the following: a pharmaceutically acceptable carrier or excipient; a pH-mediating, adjusting or buffering compound or agent; a coloring or flavoring agent; a solvent; glycerol; glycol; oil; an antibacterial or antifungal agent; antibiotics; antihistamines; or sweetening agents.

33. The pharmaceutical composition of claim 1, wherein the molecular weight per oxybate equivalent of the mixture of GHB salts is about the same as a formulation of sodium oxybate.