I CLAIM:

1. An extruded bioactive product comprising a sheet made by extruding or hot melt shaping a nonaqueous composition comprising at least one thermoplastic polymer and a bioactive agent other than tobacco, wherein the bioactive agent includes an ion exchange resin, the composition not containing polycarbophil, the sheet comprising a matrix comprising the at least one thermoplastic polymer and the bioactive agent distributed in the matrix, the matrix being soluble in the mucosa of a user and resulting in sustained release of the bioactive agent to the user.

2. The extruded bioactive product according to claim 1, wherein the sheet has a rectangular shape.

3. The extruded bioactive product according to any one of claims 1 or 2, wherein the at least one polymer comprises hydroxypropyl cellulose (HPC).

4. The extruded bioactive product according to any one of the preceding claims, wherein the bioactive is in the form of a nonaqueous liquid.

5. The extruded bioactive product according to any one of the preceding claims, further comprising a mucosal absorbing enhancer.

6. The extruded bioactive product according to any one of the preceding claims, further comprising a buffering agent for controlling a pH of the composition.

7. The extruded bioactive product according to claim 6, wherein the buffering agent is present in an amount to provide the product with a pH of 2.5 to 9 when the composition is present in the user's mouth.

8. The extruded bioactive product according to claim 1, wherein the bonds between the bioactive agent and the ion exchange resin are substantially intact.

9. The extruded bioactive product according to claim 1, wherein the ratio of ion exchange to bioactive agent exceeds 3 to 1 (wt/wt).

10. The extruded bioactive product according to any one of the preceding claims, wherein the bioactive product is in the form of a sheet having a thickness greater than 10 mil.

11. The extruded bioactive product according to any one of the preceding claims, wherein the bioactive agent includes chitosan.

12. The extruded bioactive product according to any one of the preceding claims, wherein the extruded composition includes less than 6 wt % water.

13. The extruded bioactive product according to any one of the preceding claims, further comprising a flavoring.

14. The extruded bioactive product according to any one of the preceding claims, further comprising a plasticizer.

15. The extruded bioactive product according to claim 14, wherein the sheet has an average dissolution time of 5 to 50 minutes and a thickness of approximately 10-50 mil, to dissolve in the oral cavity.

16. The extruded bioactive product according to any one of the preceding claims, wherein the sheet has a tensile strength of at least 4 lbs.

17. The extruded bioactive product according to any one of the preceding claims, wherein the sheet has a uniformity in the range of ±10%.

18. The extruded bioactive product according to any one of the preceding claims, wherein the at least one thermoplastic polymer is contained in an amount of at least 20 wt % of the whole composition.

19. The extruded bioactive product according to any one of the preceding claims, wherein the at least one thermoplastic polymer comprises a water soluble polymer.

20. The extruded bioactive product according to any one of the preceding claims, wherein the bioactive agent includes nicotine.

21. An extruded bioactive nicotine-ion exchange resinate complex-containing product comprising a thermoplastic polymer matrix, ion exchange resin and nicotine and having a maximum measured nicotine plasma concentration greater than 4 ng/ml when administered in a single dose.

CLAIMS:

1. A nonaqueous, extrudable composition comprising at least one thermoplastic polymer in an amount of more than 20 wt% of the whole composition and a bioactive agent other than tobacco, the composition not containing polycarbophil.

2. The nonaqueous, extrudable composition according to claim 1, wherein the at least one thermoplastic polymer comprises hydroxypropyl cellulose (HPC).

3. The nonaqueous, extrudable composition according to claim 1, wherein the bioactive agent is a dry powder.

4. The nonaqueous, extrudable composition according to claim 1, wherein the bioactive agent is a nonaqueous liquid.

5. The nonaqueous, extrudable composition according to claim 1, further comprising a mucosal absorbing enhancer

6. The nonaqueous, extrudable composition according to claim 1, further comprising a buffering agent for controlling a pH of the composition.

7. The nonaqueous, extrudable composition according to claim 6, wherein the buffering agent is present in an amount to provide the composition with a pH of 6 to 9 when the composition is present in a user's mouth.

8. The nonaqueous, extrudable composition according to claim 1, wherein the composition includes less than 10 wt % water.

9. The nonaqueous extrudable composition according to claim 1, wherein the bioactive agent is soluble in water.

10. The nonaqueous extrudable composition according to claim 1, wherein the bioactive agent is insoluble in water.

11. The nonaqueous, extrudable composition according to claim 1, further comprising a flavoring agent.

12. The nonaqueous, extrudable composition according to claim 1, further comprising a plasticizer.

13. The nonaqueous, extrudable composition according to claim 1, wherein the at least one thermoplastic polymer comprises a water soluble polymer.

14. The nonaqueous, extrudable composition according to claim 1, wherein the at least one thermoplastic polymer is contained in an amount up to 50 wt% of the whole composition.

15. The nonaqueous extrudable composition according to claim 1, wherein the bioactive agent includes an ion exchange resin.

16. The nonaqueous extrudable composition according to claim 1, wherein the bioactive agent includes chitosan.

17. A method for making a dosage unit, comprising extruding a nonaqueous composition comprising at least one thermoplastic polymer in an amount of more than 20 wt% the whole composition and a bioactive agent other than tobacco, the composition not containing polycarbophil, through an extruder to form an extruded sheet of the nonaqueous composition.

18. The method according to claim 17, wherein the bioactive agent includes an ion exchange resin.

19. The method according to claim 17, wherein the extruded sheet has a thickness greater than 10 mil.

20. The method according to claim 17, wherein the bioactive agent includes chitosan.

21. The method according to claim 17, wherein the at least one polymer comprises hydroxypropyl cellulose (HPC).

22. The method according to claim 17, wherein the composition is extruded at a temperature sufficiently low and for a time sufficiently short to not degrade the bioactive.

23. The method according to claim 17, wherein the composition is extruded at a temperature of less than 200°F.

24. The method according to claim 17, wherein the composition is extruded at a temperature of 350°F or lower and for a time of 2 minutes or less.

25. The method according to claim 17, wherein the composition is extruded at a temperature of 400°F or lower and for a time of 2 minutes or less.

26. The method according to claim 17, wherein the nonaqueous composition further comprises flavoring.

27. The method according to claim 17, wherein the extruder is vented.

28. The method according to claim 17, the nonaqueous composition further comprises a plasticizer.

29. The method according to claim 17, further comprising cutting the extruded sheet to form a plurality of smaller sheets.

30. The method according to claim 17, wherein the sheet has a rectangular thin strip shape having a length of 1/16 inch to 4 inches long, a width of 1/16 inch to 4 inches and a thickness of 5 to 50 mils.

31. The method according to claim 17, further comprising recycling any discarded portions of the extruded sheet to an inlet of the extruder.

32. The method according to claim 17, further comprising winding the extruded sheet about a roll to form a roll of the extruded sheet.

33. The method according to claim 17, further comprising controlling a thickness of the extruded sheet by monitoring the thickness of the extruded sheet using a thickness gauge, and controlling a feeder feeding the extruder and a pressure of a pump to pump the nonaqueous composition through a die on the basis of the monitored thickness.

34. The method according to claim 17, wherein the extruder is a single screw extruder.

35. The method according to claim 17, wherein the extruder is a double screw extruder with a pump to pump the nonaqueous composition through a die thereof at constant pressure.

36. The method according to claim 17, wherein the extruder comprises a die and a pump to control pressure on the die.

37. The method according to claim 17, wherein the composition is exposed to heat in processing for less than 90 seconds.