

CLAIMS:

1. A container comprising:
 - an outer body having an outer body wall defining an outer body cavity;
 - a first inner body located within the outer body, the first inner body having a first inner body wall with a first inner fracturable portion, the first inner body wall defining a first inner cavity within the inner body;
 - a first product contained within the first inner cavity of the inner body; and
 - a second product contained within the container separately from the first product,wherein the first inner body is adapted to fracture along the first inner fracturable portion to permit the first product to be released from the first inner cavity to meet the second product, and wherein the outer body is adapted to permit a combination of the first product and the second product to be dispensed from the container.
2. The container of claim 1, the outer body has an outer fracturable portion that is fracturable to permit the combination of the first product and the second product to be dispensed from the container.
3. The container of claim 1, wherein the first product and the second product is dispensed from the container by an opening action including actuation of a valve or a plug located on the outer body, or by applying one or more opening actions to an outer portion of the outer body such as piercing, slicing, perforating, peeling, breaking bursting or the like.
4. The container according to claim 2, wherein the second product is contained within the outer body cavity.
5. The container according to claim 2, further comprising a second inner body located within the outer body, the second inner body having a second inner body wall with a second inner fracturable portion, the second inner body wall defining a

second inner cavity, and wherein the second product is contained within the second inner cavity.

6. The container according to claim 5, wherein the first inner body and second inner body are positioned and aligned within the outer body such that the second inner fractureable portion and the first inner fractureable portion are adapted to fracture simultaneously to permit the first product to be released from the first inner cavity and received in the second inner cavity.

7. The container according to claim 5 or 6, wherein the second inner body comprises a dispensing fractureable portion adapted to fracture to permit the first product and the second product to be dispensed.

8. The container according to claim 7, wherein the dispensing fractureable portion is aligned with the outer fractureable portion such that the dispensing fractureable portion and the outer fractureable portion are adapted to fracture simultaneously and to provide co-existent dispensing openings in the second inner body and the outer body.

9. The container according to claim 7 or 8, wherein the dispensing fractureable portion is in the form of an elongate bend in the second inner body wall that defines an angle between a first portion of the second inner body and a second portion of the second inner body of about 20° to about 170°, preferably the angle is about 45° to about 105°, more preferably the angle is about 70° to about 90°.

10. The container according to any one of the claims 5 to 9, wherein the second inner body comprises a flange about a perimeter of the second inner body wall.

11. The container according to claim 10, wherein the flange of the second inner body is located at an edge of the second inner body wall defining a filling opening to the second cavity, and wherein the container further comprises a second inner cover affixed to the flange of the second inner body to seal the filling opening to the second inner cavity.

12. The container according to claim 10 or 11, wherein the second inner fracturable portion extends between a first location at the flange of the second inner body and a second location on the second inner body wall distanced from the flange of the second inner body.

13. The container according to any one of claim 5 to 12, wherein a direction of the first inner fracturable portion of the first inner body is oriented substantially parallel to a direction of the second inner fracturable portion of the second inner body.

14. The container according to any of the claims 5 to 13, wherein the second inner body is formed as a separate piece than the outer body and wherein the second inner body has been inserted into the outer body during manufacture of the container.

15. The container according to any one of claims 5 to 14, wherein the second inner fracturable portion is in the form of an elongate bend in the second inner body wall that defines an angle between a first side of the second inner body and a second side of the second inner body of about 20° to about 170°, preferably the second angle is about 45° to about 105°, more preferably the second angle is about 70° to about 90°.

16. The container according to any one of the preceding claims, wherein the outer body comprises a flange about a perimeter of the outer body wall.

17. The container according to claim 16, wherein the flange of the outer body is located at an edge of the outer body that defines a filling opening to the outer cavity, and wherein the container further comprises a cover affixed to the flange of the outer body to seal the filling opening to the outer cavity.

18. The container according to any one of the preceding claims, wherein the first inner fracturable portion of the first inner body is spaced apart from an opposed portion of the outer body wall, such that the opposed portion of the outer body wall does not interfere with the first inner fracturable portion during fracturing thereof and the first product is permitted to be released from the first inner cavity without interference from the opposed portion of the outer body wall.

19. The container according to any one of the preceding claims, wherein the first inner body is located towards an end of the outer body, and wherein the outer body wall at said end of the outer body comprises a pointed geometry.

20. The container according to any one of the preceding claims, wherein the first inner body comprises an elongate shape with first and second ends at either end of the elongate shape, and wherein the first inner fracturable portion is located between the first and second ends.

21. The container according to claim 2, wherein a plane of the first inner fracturable portion of the first inner body wall within the container is oriented substantially perpendicularly to a plane of the outer fracturable portion of the outer body wall.

22. The container according to claim 2, wherein a plane of the first inner fracturable portion of the first inner body wall within the container is oriented substantially parallel to a plane of the outer fracturable portion of the outer body wall.

23. The container according to any one of the preceding claims, wherein the first inner body comprises a flange about a perimeter of the first inner body wall.

24. The container according to claim 23, wherein the flange of the first inner body is located at an edge of the first inner body wall defining a filling opening to the first inner cavity, and wherein the container further comprises a first inner cover affixed to the flange of the first inner body to seal the filling opening to the second cavity.

25. The container according to any of the preceding claims, wherein the first inner body is formed as a separate piece than the outer body and wherein the first inner body has been inserted into the outer body during manufacture.

26. The container according to claim 25, wherein the outer body includes a receiving region which is shaped to correspond to a shape of the first inner body, such that the first inner body is located in the receiving region.

27. The container according to claim 26, wherein the receiving region comprises at least one shelf or slot which receives a corresponding portion of the first inner body.

28. The container according to claim 2, wherein the outer fractureable portion is in the form of an elongate bend in the outer body wall that defines an angle between a first portion of the outer body and a second portion of the outer body of about 20° to about 170°, preferably the angle is about 45° to about 105°, more preferably the angle is about 70° to about 90°.

29. The container according to any one of the preceding claims, wherein the first inner fractureable portion is in the form of an elongate bend in the first inner body wall that defines an angle between a first portion of the first inner body and a second portion of the first inner body of about 20° to about 170°, preferably the second angle is about 45° to about 105°, more preferably the second angle is about 70° to about 90°.

30. The container according to claim 2, wherein a thickness of the outer body is substantially constant over the entire outer body wall including at the outer fracturable portion.

31. The container according to any one of the preceding claims, wherein a thickness of the first inner body is substantially constant over the entire first inner body wall including at the first inner fracturable portion.

32. The container according to any one of claims 5 to 15, wherein a thickness of the second inner body is substantially constant over the entire second inner body wall including at the second inner fracturable portion.

33. The container according to claim 2, wherein the outer fracturable portion and/or the first inner fracturable portion includes at least one fracture conductor, and wherein the at least one fracture conductor is in the form of one or more of: a localised change of depth of the bend; a localised change of cross-sectional shape of the bend; and/or a localised change of crystallisation where the respective inner or outer body is formed from a crystallisable material.

34. The container according to any one of claims 5 to 15 or 32, wherein the second inner fracturable portion includes at least one fracture conductor, and wherein the at least one fracture conductor is in the form of one or more of: a localised change of depth of the bend; a localised change of cross-sectional shape of the bend; and/or a localised change of crystallisation where the respective inner or outer body is formed from a crystallisable material.

35. The container according to claim 2, wherein the first inner body is positioned within the outer body such that a fracture of the first inner fracturable portion is initiated by an application of a force to the inner body comprises a flexing or a bending of the outer body.

36. The container according to claim 35 when dependent from any one of claims 5 to 15, 32 or 34, wherein the second inner body is positioned within the outer body such that a fracture of the second inner fracturable portion is initiated by the flexing or the bending of the outer body.

37. The container according to claim 35 or 36, wherein the flexing or the bending of the outer body occurs at a portion of the outer body which does not comprise the outer fracturable portion.

38. The container according to any one of the preceding claims, wherein a thickness of the outer body wall and/or the first inner body wall is about 300 μ m to about 600 μ m.

39. The container according to any one of claims 5 to 15, 32, 34 or 36, wherein thickness of the second inner body wall is about 300 μ m to about 600 μ m.

40. The container according to any one of the preceding claims, wherein one or both of the first product and the second product comprises a liquid.

41. The container of claim 40, wherein one of the first product and the second product comprises a liquid and the other of the first product and the second product comprises a solid or a powder.

42. The container according to claim 40 or 41, wherein the first product is a tablet and the second product is a liquid, and wherein the first inner body comprises at least one structural feature adapted to retain the tablet adjacent to the first inner fracturable portion when the first inner body is in an unfractured state.

43. The container according to claim 2, comprising at least one second inner body within the outer body cavity, the second inner body comprising a second inner body wall defining a second inner cavity for containing a third product, wherein the second inner body wall comprises a second inner body fracturable

portion, and wherein the second inner body is adapted to fracture along the second inner fracturable portion to form a second inner body opening when a force is applied to the second inner body,

wherein the container is configured such that, in use, the first inner body is fractured to release the first product from the first inner cavity through a first inner body opening into the outer body cavity, the second inner body is fractured to release the third product from the second inner body cavity through the second inner body opening into the outer body cavity, the first product and the second product and the third product being combined or mixed within the outer body cavity, and the outer body is fractured along the outer fracturable portion to form a dispensing opening to allow the combined or mixed first, second and third products to be dispensed through the dispensing opening.

44. A method of manufacturing a container housing, comprising:

forming an outer body having an outer body wall defining a first cavity, the outer body wall comprising a first bend forming a first fracturable portion;

forming an inner body having an inner body wall defining a second cavity, the inner body wall comprising a second bend forming a second fracturable portion;

depositing a first product into the second cavity and sealing the second cavity to retain the first product therein;

depositing a second product into the first cavity;

inserting the inner body into the first cavity; and

sealing the first cavity to retain the second product and the inner body therein.

45. A method of manufacturing a container housing, comprising:

forming an outer body having an outer body wall defining a first cavity, the outer body wall comprising a first bend forming a first fracturable portion;

forming a first inner body having a first inner body wall defining a second cavity, the first inner body wall comprising a second bend forming a second fracturable portion;

forming a second inner body having an second inner body wall defining a

third cavity, the inner body wall comprising a second bend forming a third fracturable portion and a fourth bend forming a fourth fracturable portion;

depositing a first product into the second cavity and sealing the second cavity to retain the first product therein;

depositing a second product into the third cavity and sealing the third cavity to retain the second product therein;

inserting the first inner body and the second inner body into the first cavity;
and

sealing the first cavity to retain the first inner body and the second inner body therein.

46. The method according to claim 44 or 45, wherein the container is formed from a material comprising at least one of: polystyrene, polypropylene, polyethylene terephthalate (PET), amorphous polyurethane terephthalate (APET), polyvinyl chloride (PVC), high density polyethylene (HDPE), low density polyethylene (LDPE), polylactic acid (PLA), bio material, mineral filled material, thin metal formed material, acrylonitrile butadiene styrene (ABS), Cyclic Olefin Co-Polymer (COC), Polyether Ether Ketone (PEEK) and laminate.

47. The method according to claim 46, wherein the container is formed by at least one of sheet thermoforming, injection moulding, compression moulding, extrusion blow moulding, blow moulding or 3D printing.

48. The method according to any one of claims 44 to 46, wherein the outer body is formed with a flange at an edge of the outer body that defines a filling opening to the first cavity, and wherein the sealing the first cavity comprises affixing a cover to the flange of the outer body.

49. The method according to claim 48, wherein the cover of the outer body is bonded and sealed to the flange of the outer body through one of heating, ultrasonic welding, pressure sensitive adhesive, heat actuated adhesive or another type of adhesive.

50. The method according to claim 44, wherein the inner body is formed with a flange at an edge of the inner body that defines a filling opening to the second cavity, and wherein the sealing the second cavity comprises affixing a cover to the flange of the inner body.

51. The method according to claim 50, wherein the cover of the inner body is bonded and sealed to the flange of the inner body through one of heating, ultrasonic welding, pressure sensitive adhesive, heat actuated adhesive or another type of adhesive.

52. The method according to claim 45, wherein the first inner body is formed with a flange at an edge of the first inner body that defines a filling opening to the second cavity, and wherein the sealing the second cavity comprises affixing a cover to the flange of the first inner body, and

wherein the second inner body is formed with a flange at an edge of the second inner body that defines a filling opening to the third cavity, and wherein the sealing the third cavity comprises affixing a cover to the flange of the second inner body

53. The method according to claim 52, wherein the cover of the first inner body is bonded and sealed to the flange of the first inner body and the cover of the second inner body is bonded and sealed to the flange of the second inner body through one of heating, ultrasonic welding, pressure sensitive adhesive, heat actuated adhesive or another type of adhesive.

54. The method according to claim 44, further comprising forming a receiving region in the outer body that is shaped to correspond to a shape of the inner body, and wherein inserting the inner body into the first cavity comprises positioning the inner body in the receiving region.

55. The method according to claim 54, wherein the receiving region comprises at least one shelf or slot which receives a corresponding portion of the inner body.

56. The method according to claim 44, wherein the outer body and the inner body each share a common cover, the common cover being adapted to seal both the first product in the first cavity and the second product in the second cavity.

57. The method according to claim 44, further comprising a sterilisation of the inner body and/or outer body.

58. The method according to claim 45, further comprising a sterilisation of the outer body, the first inner body and/or the second inner body.

59. The method according to claim 57 or 58, wherein the sterilisation is carried out through one or more of: aseptic manufacturing, ultraclean manufacturing, or secondary sterilisation such as gamma irradiation, ethylene oxide (EtO) gas or application of heat.