Claims

[Claim 1]

A composition comprising

a fine particle composite comprising insoluble dietary fibers and

a fat/oil,

wherein the composition satisfies the following (1) to (9):

(1) the composition comprises an edible part and an inedible part of a food material, wherein a dry weight proportion of the inedible part/(the edible part + the inedible part) is 1% or more and 80% or less,

(2) the composition comprises the insoluble dietary fiber at a content of 0.1 mass% or more,

(3) a fine particle content is 2 mass% or more and 98 mass% or less,

(4) a total fat/oil content is 10 mass% or more and 98 mass% or less,

(5) the composition comprises water at a content of less than 20 mass%,

(6) a modal diameter of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes is 0.3 μm or more and 200 μm or less,

(7) (specific surface area per unit volume of the fine particle and the fine particle composite after ultrasonication at a frequency of 40kHz applied at an

output of 40W for 3 minutes [m^2/mL])/(minimum particle size of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [μm]) is 0.1 or more,

(8) (specific surface area per unit volume of the fine particle and the fine particle composite before ultrasonication [m^2/mL])/(specific surface area per unit volume of the fine particle and the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [m^2/mL]) is 0.01 or more and 0.99 or less,

(9) the insoluble dietary fibers in the composition contain those derived from an edible part and/or an inedible part of the food material containing insoluble dietary fibers of the same kind, and

wherein the food material is one or more selected from the group consisting of nuts/seeds, grains, pulses, vegetables, tubers and roots, mushrooms and fruits, and the inedible part of the food material one or more selected from the group consisting of corn cores, bell pepper seeds or stems, squash seeds or guts, carrot skins or stems, green pea pods, beet skins, broccoli stalks and leaves, edamame pods and tomato stems.

[Claim 2]

The composition according to claim 1, wherein the total fat/oil content is 20 mass% or more and 98 mass% or less.

[Claim 3]

The composition according to claim 1 or 2, wherein the total fat/oil content [mass%]/(water content [mass%] + total fat/oil content [mass%]) is 75% or more.

[Claim 4]

The composition according to any one of claims 1 to 3, wherein 90 mass% or more of the total fat/oil content is an edible fat/oil in a liquid state at 20°C.

[Claim 5]

The composition according to any one of claims 1 to 4, wherein a viscosity by a Bostwick viscometer at a measurement temperature of 20°C for a measurement time of 1 second is 0.1 cm or more.

[Claim 6]

The composition according to any one of claims 1 to 5, wherein a viscosity of a fat/oil part in the composition by a Bostwick viscometer at a measurement temperature of 20°C for a measurement time of 10 seconds is 10.0 cm or more.

[Claim 7]

The composition according to any one of claims 1 to 6, wherein a maximum particle size before ultrasonication is 30 μm or more.

[Claim 8]

The composition according to any one of claims 1 to 7, wherein the fine particle content is 15 mass% or more.

[Claim 9]

The composition according to any one of claims 1 to 8, not comprising an emulsifier as a food additive formulation.

[Claim 10]

The composition according to any one of claims 1 to 9, wherein a total content of food materials containing insoluble dietary fibers to a total insoluble component content in the composition is 30 mass% or more.

[Claim 11]

The composition according to any one of claims 1 to 10, wherein the food material containing insoluble dietary fibers is one or more selected from the group consisting of nuts/seeds, grains, pulses, vegetables, tubers and roots, mushrooms and fruits.

[Claim 12]

The composition according to any one of claims 1 to 11, wherein the food material containing insoluble dietary fibers is one or more selected from the group consisting of carrots, squashes, corns, edamame, bell peppers, beets, green peas, broccolis and tomatoes.

[Claim 13]

The composition according to any one of claims 1 to 12, wherein a water activity value of the food material containing insoluble dietary fibers is 0.10 or more and 0.95 or less.

[Claim 14]

The composition according to any one of claims 1 to 13, comprising a pulverized product of the food material containing insoluble dietary fibers.

[Claim 15]

The composition according to claim 14, wherein the pulverized product is a stirred media mill-treated product of a dried food material.

[Claim 16]

The composition according to claim 15, wherein the stirred media mill-treated product is a wet stirred media mill-treated product.

[Claim 17]

A composition comprising

a fine particle composite comprising insoluble dietary fibers and

a fat/oil,

wherein the composition satisfies the following (1) to (9):

(1) the composition comprises an edible part and an inedible part of a food material, wherein a dry weight ratio of (the inedible part)/(edible part + inedible part) is 1% or more and 80% or less,

(2) the composition comprises insoluble dietary fibers at a content of 0.1 mass% or more,

(3) a fine particle content is 2 mass% or more and 98 mass% or less,

(4) a total fat/oil content is 10 mass% or more and 98 mass% or less,

(5) the composition comprises water at a content of less than 20 mass%,

(6) a modal diameter of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes is 0.3 μm or more and 200 μm or less,

(7) (specific surface area per unit volume of the fine particle and the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [m^2/mL])/(minimum particle size of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [μm]) is 0.1 or more,

(8) 90 mass% or more of the total fat/oil content is a liquid edible fat/oil at 20°C,

(9) the insoluble dietary fibers in the composition contain those derived from an edible part and/or an inedible part of a food material, and

wherein the food material is one or more selected from the group consisting of nuts/seeds, grains, pulses, vegetables, tubers and roots, mushrooms and fruits, and the inedible part of the food material one or more selected from the group consisting of corn cores, bell pepper seeds or stems, squash seeds or guts, carrot skins or stems, green pea pods, beet skins, broccoli stalks and leaves, edamame pods and tomato stems.

[Claim 18]

A composition comprising

a fine particle composite comprising insoluble dietary fibers and

a fat/oil,

wherein the composition satisfies the following (1) to (9):

(1) the composition comprises an edible part and an inedible part of a food material, wherein a dry weight ratio of (the inedible part)/(the edible part + the inedible part) is 1% or more and 80% or less,

(2) the composition comprises the insoluble dietary fibers at a content of 0.1 mass% or more,

(3) a fine particle content is 2 mass% or more and 98 mass% or less,

(4) a total fat/oil content is 10 mass% or more and 98 mass% or less,

(5) a water content is less than 20 mass%,

(6) a modal diameter of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes is 0.3 μm or more and 200 μm or less,

(7) (specific surface area per unit volume of the fine particle and the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [m^2/mL])/(minimum particle size of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [μm]) is 0.1 or more,

(8) a viscosity of a fat/oil part in the composition by a Bostwick viscometer at a measurement temperature of 20°C for a measurement time of 10 seconds is 10.0 cm or more,

(9) the insoluble dietary fibers in the composition contain those derived from an edible part and/or an inedible part of a food material, and

wherein the food material is one or more selected from the group consisting of nuts/seeds, grains, pulses, vegetables, tubers and roots, mushrooms and fruits, and the inedible part of the food material one or more selected from the group consisting of corn cores, bell pepper seeds or stems, squash seeds or guts, carrot skins or stems, green pea pods, beet skins, broccoli stalks and leaves, edamame pods and tomato stems.

[Claim 19]

A composition comprising

a fine particle composite comprising insoluble dietary fibers and

a fat/oil,

wherein the composition satisfies the following (1) to (9):

(1) the composition comprises an edible part and an inedible part of a food material, wherein a dry weight proportion of (the inedible part)/(the edible part + the inedible part) is 1% or more and 80% or less,

(2) the composition comprises the insoluble dietary fibers at a content of 0.1 mass% or more ,

(3) a fine particle content is 2 mass% or more and 98 mass% or less,

(4) a total fat/oil content is 10 mass% or more and 98 mass% or less,

(5) the composition comprises water at a content of less than 20 mass%,

(6) a modal diameter of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes is 0.3 μm or more and 200 μm or less,

(7) (specific surface area per unit volume of the fine particle and the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [m^2/mL])/(minimum particle size of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [μm] is 0.1 or more,

(8) a total content of food materials containing insoluble dietary fibers to a total insoluble component content in the composition is 30 mass% or more

(9) the insoluble dietary fibers in the composition contain those derived from an edible part and/or an inedible part of a food material, and

wherein the food material is one or more selected from the group consisting of nuts/seeds, grains, pulses, vegetables, tubers and roots, mushrooms and fruits, and the inedible part of the food material one or more selected from the group consisting of corn cores, bell

pepper seeds or stems, squash seeds or guts, carrot skins or stems, green pea pods, beet skins, broccoli stalks and leaves, edamame pods and tomato stems.

[Claim 20]

A composition comprising

a fine particle composite comprising insoluble dietary fibers and

a fat/oil,

wherein the composition satisfies the following (1) to (9):

(1) the composition comprises an edible part and an inedible part of a food material, and a dry weight ratio of (the inedible part)/(edible part + inedible part) is 1% or more and 80% or less,

(2) the composition comprises the insoluble dietary fibers at a content of 0.1 mass% or more,

(3) a fine particle content is 2 mass% or more and 98 mass% or less,

(4) a total fat/oil content is 10 mass% or more and 98 mass% or less,

(5) the composition comprises water at a content of less than 20 mass%,

(6) a modal diameter of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes is 0.3 μm or more and 200 μm or less,

(7) (specific surface area per unit volume of the fine particle and the fine particle composite after

ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [m^2/mL])/(minimum particle size of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [μm]) is 0.1 or more,

(8) the insoluble dietary fibers comprises those derived from an edible part and an inedible part of a food material of the same kind,

(9) the insoluble dietary fibers in the composition contain those derived from an edible part and/or an inedible part of a food material, and

wherein the food material is one or more selected from the group consisting of nuts/seeds, grains, pulses, vegetables, tubers and roots, mushrooms and fruits, and the inedible part of the food material one or more selected from the group consisting of corn cores, bell pepper seeds or stems, squash seeds or guts, carrot skins or stems, green pea pods, beet skins, broccoli stalks and leaves, edamame pods and tomato stems.

[Claim 21]

A food product and a drink product comprising the composition according to any one of claims 1 to 20.

[Claim 22]

A liquid seasoning comprising the composition according to any one of claims 1 to 20.

[Claim 23]

A method for producing the composition according to any one of claims 1 to 22, the method comprising

pulverizing a food material containing insoluble dietary fibers.

[Claim 24]

The method according to claim 23, wherein a water activity value of the food material containing insoluble dietary fibers is 0.95 or less.

[Claim 25]

The method according to claim 23 or 24, comprising adding fine particles of one or more food material containing insoluble dietary fibers, selected from the group consisting of dried nuts/seeds, dried grains, dried pulses, dried vegetables, dried tubers and roots, dried mushrooms and dried fruits and a fat/oil.

[Claim 26]

The method according to any one of claims 23 to 25, comprising pulverizing a composition comprising fine particles of a food material containing insoluble dietary fibers and a fat/oil to prepare the composition in such a way as to satisfy the following (1) to (9):

(1) the composition comprises an edible part and an inedible part of the food material, and a dry weight ratio of (the inedible part)/(the edible part + the inedible part) is 1% or more and 80% or less,

(2) the composition comprises insoluble dietary fibers at a content of 0.1 mass% or more,

(3) a fine particle content is 2 mass% or more and 98 mass% or less,

(4) a total fat/oil content is 10 mass% or more and 98 mass% or less,

(5) the composition comprises water at a content of less than 20 mass%,

(6) a modal diameter of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes is 0.3 μm or more and 200 μm or less,

(7) (specific surface area per unit volume of the fine particle and the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [m^2/mL])/(minimum particle size of the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [μm] is 0.1 or more,

(8) (specific surface area per unit volume of the fine particle and the fine particle composite before ultrasonication [m^2/mL])/(specific surface area per unit volume of the fine particle and the fine particle composite after ultrasonication at a frequency of 40kHz applied at an output of 40W for 3 minutes [m^2/mL]) is 0.01 or more and 0.99 or less,

(9) the insoluble dietary fibers in the composition contain those derived from an edible part and/or an inedible part of a food material, and

wherein the food material is one or more selected from the group consisting of nuts/seeds, grains, pulses, vegetables, tubers and roots, mushrooms and fruits, and

the inedible part of the food material one or more selected from the group consisting of corn cores, bell pepper seeds or stems, squash seeds or guts, carrot skins or stems, green pea pods, beet skins, broccoli stalks and leaves, edamame pods and tomato stems.

[Claim 27]

A method for enhancing eatability of a composition comprising insoluble dietary fibers, the method comprising pulverizing the composition containing insoluble dietary fibers to obtain the composition according to any one of claims 1 to 20.

[Claim 28]

A method for producing a liquid seasoning, the method comprising causing the liquid seasoning to contain the composition according to any one of claims 1 to 20.

[Claim 29]

A method for producing a consistent liquid composition, the method comprising mixing the composition according to any one of claims 1 to 20 and a liquid composition.

[Claim 30]

A method for increasing viscosity of a liquid composition, the method comprising mixing the composition according to any one of claims 1 to 20 and a liquid composition.

[Claim 31]

A method for producing an acidic emulsified liquid seasoning, the method comprising mixing the composition

according to any one of claims 1 to 20 and an emulsified liquid composition.

[Claim 32]

A method for controlling denaturation of an emulsified liquid seasoning, the method comprising mixing the composition according to any one of claims 1 to 20 and an emulsified liquid composition.

[Claim 33]

A method for producing an emulsified liquid composition, the method comprising mixing the composition according to any one of claims 1 to 20, a liquid fat/oil and water.

[Claim 34]

A method for enhancing emulsion stability of an emulsified liquid composition after mixed, the method comprising mixing the composition according to any one of claims 1 to 20 and a liquid fat/oil and water.

[Claim 35]

A method for producing a food product composition, the method comprising mixing the composition according to any one of claims 1 to 20 and a solid food material, wherein the composition and the solid food material are in a state of being homogeneously mixed.

[Claim 36]

A method for causing a mixture of the composition according to any one of claims 1 to 20 and a solid food material to become compatible without unevenness, the

method comprising mixing the composition and the solid food material.

[Claim 37]

A method for producing a heated dish, the method comprising heat cooking a food material using the composition according to any one of claims 1 to 20 as a cooking oil for a food product.

[Claim 38]

A method for using the composition according to any one of claims 1 to 20 as a heat cooking oil for a food product.

[Claim 39]

A method for producing an expandable food product to which water resistance is imparted, comprising treating an expandable food product with the composition according to any one of claims 1 to 20.

[Claim 40]

A method for imparting water resistance to an expandable food product, comprising treating an expandable food product with the composition according to any one of claims 1 to 20.

[Claim 41]

A method for producing a food product with suppressed component loss during cooking, the method comprising treating a food product whose component is likely to be lost during cooking with the composition according to any one of claims 1 to 20.

[Claim 42]

A method for controlling component loss from a food product whose component is likely to be lost during cooking, the method comprising treating the food product with the composition according to any one of claims 1 to 20.