

Claims

1. A food stabilising composition comprising at least one plant derived inhibitor of fatty acid oxidation, wherein the at least one plant derived inhibitor comprises an extract or juice or product obtained from or obtainable from at least one plant selected from the group consisting of the Fabaceae family, the Lamiaceae family, the Amaranthaceae family and the Lythraceae family, and mixtures thereof, wherein when the at least one plant derived inhibitor comprises an extract or juice or product obtained or obtainable from the Lamiaceae family, the food stabilising composition must comprise an extract or juice or product obtained or obtainable from at least one plant selected from the group consisting of the Fabaceae family, the Amaranthaceae family and the Lythraceae family, and mixtures thereof.
2. A food stabilising composition according to claim 1, wherein the at least one plant derived inhibitor is extracted from the leaves and/or the fruit of the plant, such as from the fruit of the plant.
3. A food stabilising composition according to claim 1 or 2, wherein the at least one plant derived inhibitor comprises:
- (a) an extract obtained from or obtainable from a plant of the Fabaceae family; and optionally an extract obtained from or obtainable from a plant of the Lamiaceae family.
4. A food stabilising composition according to claim 1 or 2, wherein the at least one plant derived inhibitor comprises:
- (a) an extract obtained from or obtainable from a plant of the Lamiaceae family; and
- (b) (i) an extract obtained from or obtainable from a plant of the Fabaceae family; and/or
- (ii) an extract obtained from or obtainable from a plant of the Amaranthaceae family.
5. A food stabilising composition according to claim 1 or 2, wherein the at least one plant derived inhibitor comprises an extract obtained from or obtainable from a plant of the Lythraceae family.
6. A food stabilising composition according to any of the preceding claims, wherein: the at least one plant selected the Fabaceae family is pea;

the at least one plant selected the Lamiaceae family is rosemary;
the at least one plant selected the Amaranthaceae family is spinach; and
the at least one plant selected the Lythraceae family is pomegranate.

5 7. A food stabilising composition according to any of the preceding claims, wherein
the at least one plant derived inhibitor is an extract obtained from or obtainable from
spinach, peas, pomegranate, and rosemary and combinations thereof.

8. A food stabilising composition according to any of the preceding claims, wherein
10 the at least one plant derived inhibitor comprises an extract or juice or product obtained or
obtainable from: (i) rosemary and spinach; (ii) rosemary and pea; (iii) pea; or (iv)
pomegranate.

9. A food stabilising composition according to any one of the preceding claims,
15 wherein the at least one plant derived inhibitor contains at least about 0.1% polyphenols
by weight of the at least one plant derived inhibitor.

10. A food stabilising composition according to any one of the preceding claims,
wherein the at least one plant derived inhibitor contains less than about 5% citric acid by
20 weight of the at least one plant derived inhibitor.

11. A food stabilising composition according to any one of the preceding claims,
wherein the at least one plant derived inhibitor is the combination of an extract, juice or
product obtained or obtainable from two different plants selected from the group consisting
25 of the Fabaceae family, the Lamiaceae family, the Amaranthaceae family and the
Lythraceae family, wherein the weight ratio of each extract, juice or product is from about
1:99 to about 99:1, such as from about 50:1 to about 1:50, or about 25:1 to about 1:25 or
from about 5:1 to about 1:5, such as 1:1.

30 12. A process for obtaining a food stabilising composition as defined in any one of the
preceding claims comprising the steps of:

- (i) contacting at least one plant selected from the group consisting of the Fabaceae
family, the Lamiaceae family, the Amaranthaceae family and the Lythraceae family or
combinations thereof with a solvent; and
- 35 (ii) removing the solvent; or
- a. crushing the at least one plant or fruit of the at least one plant selected from the
group consisting of the Fabaceae family, the Lamiaceae family, the

Amaranthaceae family and the Lythraceae family or combinations thereof to obtain the juice; and

- b. evaporating the liquid from the juice or concentrating juice in presence of carbonates/and or hydroxyls and their corresponding salts.

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13. A process according to claim 12, wherein the at least one plant selected from the group consisting of the Fabaceae family, the Lamiaceae family, the Amaranthaceae family and the Lythraceae family or combinations thereof is ground before contacting with a solvent.

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14. A food stabilising composition obtainable by the process according to claim 12 or 13.

15. A method for stabilising a foodstuff, nutrition and health matrix or cosmetics matrix comprising the step of contacting a foodstuff, nutrition and health matrix or cosmetics matrix with a stabilising composition according to any one of claims 1 to 14.

16. A method according to claim 15, wherein the food stabilising composition inhibits or prevents oxidation of a foodstuff, nutrition and health matrix or cosmetics matrix, preferably wherein the food stabilising composition inhibits or prevents the conversion of polyunsaturated fatty acid (PUFA) oils to 2,4-heptadienal and/or 2,4-decadienal in a foodstuff, nutrition and health matrix or cosmetics matrix.

17. A method according to claim 15 or 16, wherein the food stabilising composition is present in a foodstuff, nutrition and health matrix or cosmetics matrix in an amount from about 0.01% to about 5% by weight of the foodstuff, nutrition and health matrix or cosmetics matrix.

18. The use of a food stabilising composition according to any one of claims 1 to 11 or 14, for stabilising a foodstuff, nutrition and health matrix or cosmetics matrix.

19. The use according to claim 18, wherein the food stabilising composition inhibits or prevents oxidation of a foodstuff, nutrition and health matrix or cosmetics matrix, preferably wherein the food stabilising composition inhibits or prevents the conversion of polyunsaturated fatty acid (PUFA) oils to 2,4-heptadienal and/or 2,4-decadienal in the foodstuff, nutrition and health matrix or cosmetics matrix.

20. The use according to claim 18 or 19, wherein the food stabilising composition is present in a foodstuff, nutrition and health matrix or cosmetics matrix in an amount from about 0.1% to about 5% by weight of the foodstuff, nutrition and health matrix or cosmetics matrix.
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21. The method according to claims 15 to 17 or the use according to Claims 18 to 20, wherein the foodstuff comprises an oil-in-water emulsion.
22. The method or use according to claim 21, wherein the oil-in-water emulsion is a mayonnaise.
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23. The method or use according to claims 21 or 22, wherein the oil-in-water emulsion or mayonnaise is substantially free of EDTA.
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24. A foodstuff comprising a food stabilising composition according to any one of claims 1 to 11 and 14.
25. A foodstuff according to claim 24, wherein the foodstuff comprises an oil-in-water-emulsion.
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26. A foodstuff according to claim 25, wherein the oil-in-water-emulsion is a mayonnaise.
27. A foodstuff according to claims 25 or 26, wherein the oil-in-water emulsion or mayonnaise is substantially free of EDTA.
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28. A method of preparing an oil-in-water emulsion according to claim 25 comprising the steps of:
- (iv) mixing a first aqueous phase, optionally with a stabilising composition according to any one of claims 1 to 11 and 14;
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- (v) adding oil to the product obtained in step (i), optionally with a stabilising composition according to any one of claims 1 to 11 and 14; and
- (vi) adding at least one further aqueous phase to the product obtained in step (ii).
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29. A method according to Claim 28, wherein the first aqueous phase comprises water and egg yolk.

30. A method according to Claims 28 or 29, wherein the at least one further aqueous phase comprises vinegar.