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(54) Title: TEXTURE PROVIDING FAT COMPOSITION

(57) Abstract: A texture providing fat composition comprising at least 25 % Sat(C12-C24)20-triglycerides by weight of said texture providing fat composition, and - at least 3.0 % OSatO-triglycerides by weight of said texture providing fat composition, wherein said texture providing fat composition has a weight-ratio between OSatO-triglycerides and the sum of SatOO-triglycerides and OSatO-triglycerides which is at least 0.30, wherein Sat is a saturated fatty acid, Sat(C12-C24) is a saturated fatty acid of chain length C12 to C24 and O is oleic acid. Also, a method for obtaining the texture providing fat composition and use of the texture providing fat composition is disclosed.



TEXTURE PROVIDING FAT COMPOSITION

FIELD OF INVENTION

The present invention relates to a texture providing fat composition. The present
5 invention also relates to the use of such a texture providing fat composition and a method for producing such a texture providing fat composition.

BACKGROUND

10 Fat have several roles in an edible product and, apart from taste and nutritional purpose, it also provides structure. It is well known that the texture providing properties of a fat composition are related to a variety of properties of the fat e.g. the nature of the fatty acids and their individual amount as well as the type of triglycerides. In general, short chain triglycerides are liquid at room temperature
15 and the longer the chain length the higher is the melting point. Furthermore, U3-types (where U is unsaturated fatty acids) of triglycerides are liquid whereas trans-hydrogenated and Sat3-types (where Sat denotes a saturated fatty acid) are solid at room temperature.

20 For mixtures also comprising SatU2 and Sat2U-types the texture providing properties are in general related to the degree of saturated content and thus the melting characteristics i.e. the solid fat content at relevant temperatures. From a functional point the use of fat compositions with a relative high amount of saturated content is preferable, but due to the health recommendations to limit the intake of
25 saturated fat, there is a need for fat compositions with a low content of saturated fatty acids while still having good structure.

EP2007214B1 describes edible products which contains, expressed on total product basis, less than 30 % by weight of saturated fatty acids, between 20 and 100 % of a
30 triglyceride composition, between 0 and 80 % by weight of a filler material and less than 15 % of water. The triglyceride composition contains less than 45 % by weight

- of saturated fatty acids, less than 10 % by weight of trans unsaturated fatty acids, at least 8 % by weight of SatUSat-triglycerides, wherein Sat is a C16-C18 saturated fatty acid, U is unsaturated fatty acid having at least 18 C atoms, less than 15 % by weight of Sat3, at least 90% by weight of C8-18 fatty acids, at least 75 % by weight of C18 fatty acids including saturated and unsaturated fatty acids and has a solid fat content (SFC) at 20 degrees Celsius of between 5 and 50 %. The examples describe how structured food products, for example confectionery creams may be made with a reasonable texture in relation to their levels of saturated fatty acids (SAFA).
- 10 From the abovementioned it appears that there is a particular need for texture providing fat compositions having a higher texture per saturated fatty acid and/or low content of saturated fatty acids and at the same time having functional characteristics providing good texture in the final composition. Accordingly, the main object of the invention is to provide such fat compositions providing similar or better texture in the final composition per saturated fatty acid than prior art, and at the same time have a similar or lower content of saturated fatty acids.

SUMMARY

It is thus an object of the present invention to provide novel fat compositions that provide similar or better texture of the fat composition than prior art fat compositions at the same or a lower content of saturated fatty acids than is known
5 in the art.

Accordingly, the invention relates to a texture providing fat composition comprising

- at least 25 % Sat(C12-C24)2O-triglycerides by weight of said texture
10 providing fat composition, and
- at least 3.0 % OSatO-triglycerides by weight of said texture providing fat composition,

wherein said texture providing fat composition has a weight-ratio between

- OSatO-triglycerides and
- 15 - the sum of SatOO-triglycerides and OSatO-triglycerides

which is at least 0.30,

wherein Sat is a saturated fatty acid, Sat(C12-C24) is a saturated fatty acid of chain length C12 to C24 and O is oleic acid.

- 20 The texture providing fat composition according to the invention or any of its embodiments may be particular useful as an ingredient, typically the major ingredient, in fillings or coatings within confectionary, bakery, dairy, and culinary applications to provide an exceptionally good texture to the filling or coating, especially compared to the amounts of saturated fatty acids in the texture providing
25 fat composition.

The texture providing fat composition according to the invention or any of its embodiments display a higher texture than would be expected on the basis of the amounts of saturated fatty acids present in the texture providing fat composition.

- 30 The texture providing fat composition may furthermore provide a good mouthfeel or not compromise the mouthfeel, which may for example mean that the texture

providing fat composition does not display waxiness or may display reduced waxiness compared to other texture providing fats known in the art. The texture providing fat composition may also provide a good nutritional profile, since it is possible to reduce the amount of saturated fatty acids and still obtain a sufficient texture.

The texture providing fat composition according to the invention or any of its embodiments may also provide a higher crystallization speed compared to other fats known in the art, especially in relation to the amount of saturated fatty acids in the fat composition. This may be beneficial for example within confectionary applications, dairy applications, bakery applications and culinary applications, thus benefiting from making use of the texture providing fat composition as described herein in any of its embodiments. A high crystallization speed may be desired in production since the desired texture is obtained faster and the outcome may be more predictable

The invention relates in another aspect to an edible product comprising said texture providing fat composition according to the invention or any of its embodiments in an amount of 15 – 99.9 % by weight of said edible product. Examples of edible products according to the invention or any of its embodiments may be edible products within confectionary applications, dairy applications, bakery applications, and culinary applications, such as for example creams, coatings, soft cheese, fillings, spreads, soups and dressings.

According to a further embodiment of the invention, said edible product further comprises

- filler in an amount of 0.1 – 85 % by weight of said edible product and
- water in an amount of 0 - 20 % by weight of said edible product.

Amounts of further ingredients, such as filler and water, may vary depending on its specific application, however, such amounts are well known for someone skilled in the art of e.g. confectionary, bakery, dairy, and culinary applications and should, of

course, amount up to 100% in combination with the texture providing fat composition.

The invention relates in a further aspect to a food product, such as a dairy food product, a confectionary food product, a bakery food product or a culinary food product, comprising the texture providing fat composition according to the invention or any of its embodiments or the edible product according to the invention or any of its embodiments. Confectionery food products may for example be filled chocolate-like products, such as pralines, filled and/or coated bars, extruded fillings with or without coating, coatings, such as compound chocolate coatings, or chocolate-like coatings. Examples of bakery food products are for example filled or coated wafers, pies, cakes, croissants, loaves, breadrolls, puff pastries, a coated biscuit, a biscuit with a cream layer wherein the cream layer as such may optionally be further coated with a coating, a biscuit having a cream layer sandwiched between two or more biscuit layers etc. A dairy food product is for example coated ice cream.

The invention relates in an even further aspect to a method for producing the texture providing fat composition according to the invention or any of its embodiments, said method comprising the steps of

- 20 - providing a vegetable fat
 - providing a milk fat,
 - providing an interesterified fat comprising at least 3.0 % OSatO-triglycerides by weight of said interesterified fat,
 - mixing said interesterified fat with said vegetable fat and said milk fat
 - 25 to obtain said texture providing fat composition or any of its embodiments, wherein said texture providing fat composition comprises
 - at least 25 % Sat(C12-C24)2O-triglycerides by weight of said texture providing fat composition, and
 - at least 3.0 % OSatO-triglycerides by weight of said texture
 - 30 providing fat composition,
- wherein said texture providing fat composition has a weight-ratio between

- OSatO-triglycerides and
 - the sum of SatOO-triglycerides and OSatO-triglycerides
- which is at least 0.30,
wherein Sat is a saturated fatty acid, Sat(C12-C24) is a saturated fatty acid of
5 chain length C12 to C24 and O is oleic acid.

The invention relates in a still even further aspect to use of the texture providing fat composition according to the invention or any of its embodiments or produced by the method of the invention or any of its embodiments for the production of an
10 edible product or a food product.

In further aspects, the invention relates to use of the edible product according to the invention or any of its embodiments for the production of a food product.

DETAILED DESCRIPTION

Abbreviations

Sat = saturated fatty acid/acyl-group

5 U = unsaturated fatty acid/acyl-group

L = lauric acid/laurate = Sat(C12)

M = myristic acid/myristate = Sat(C14)

P = palmitic acid/palmitate = Sat(C16)

St = stearic acid/stearate = Sat(C18)

10 A = arachidic acid/arachidate = Sat(C20)

B = behenic acid/behenate = Sat(C22)

Lig = lignoceric acid/lignocerate = Sat(C24)

O = oleic acid/oleate

SAFA = saturated fatty acids

15

Definitions

As used herein, “%” or “percentage” all relates to weight percentage i.e. wt.% or wt.-% if nothing else is indicated.

20

As used herein, the singular forms “a”, “an” and “the” include plural referents unless the context clearly dictates otherwise.

As used herein, “oil” and “fat” is used interchangeably, unless otherwise specified.

25

As used herein, “at least one” is intended to mean one or more, i.e. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, etc.

As used herein, the term “fatty acid” encompasses free fatty acids and fatty acyl
30 residues in triglycerides.

As used herein, the term “triglycerides” may be used interchangeably with the term ‘triacylglycerides’ and should be understood as an ester derived from glycerol and three fatty acids. “Triglycerides” may be abbreviated TG or TAG.

- 5 As used herein “edible” is something that is suitable for use as food or as part of a food product, such as a dairy or confectionary product. An edible fat is thus suitable for use as fat in food or food product and an edible composition is a composition suitable for use in food or a food product, such as a dairy or confectionary product.
- 10 As used herein, the term “vegetable” shall be understood as originating from a plant retaining its original chemical structure/composition. Thus, a vegetable fat or vegetable triglycerides are still to be understood as vegetable fat or vegetable triglycerides after fractionation etc. as long as the chemical structure of the fat components or the triglycerides are not altered. When vegetable triglycerides are
- 15 for example transesterified they are no longer to be understood as a vegetable triglyceride in the present context.

Similarly, the term “non-vegetable” in the context of “non-vegetable triglyceride” or “non-vegetable fat” when used herein is intended to mean obtained from other

20 sources than native vegetable oils or fractions thereof, or obtained after transesterification. Examples of non-vegetable triglycerides may for example be, but are not limited to, triglycerides obtained from unicellular organisms, animal fat, or interesterification.

- 25 As used herein, “interesterification” should be understood as replacing one or more of the fatty acid moieties of a triglyceride with another fatty acid moiety or exchanging one or more fatty acid moieties from one triglyceride molecule to another. A fatty acid moiety may be understood as a free fatty acid, a fatty acid ester, a fatty acid anhydride, an activated fatty acid and/or the fatty acyl part of a
- 30 fatty acid. The term ‘interesterification as used herein may be used interchangeably with ‘transesterification’. The interesterification process may be an enzymatic

interesterification or chemical interesterification. Both chemical interesterification and enzymatic interesterification is described well in the art. Both chemical and enzymatic interesterification may be done by standard procedures.

- 5 By a “chocolate-like” product is meant a product, which at least is experienced by the consumer as chocolate or as a confectionery product having sensorial attributes common with chocolate, such as e.g. melting profile, taste etc.

As used herein ‘Sat(C12-C24)’ is intended to mean saturated fatty acid or saturated fatty acyl moiety of chain length C12 to C24. It may thus for example be lauric acid/laurate, myristic acid/myristate, palmitic acid/palmitate, stearic acid/stearate, arachidic acid/arachidate, behenic acid/behenate, or lignoceric acid/lignocerate. Thus, for example an amount of OSat(C16-C18)O-triglycerides are intended to mean the combined amount of triglycerides, where the fatty acid at the sn-2 position may be a saturated fatty acids of any chain length between C16 and C18, and thus the combined amount of OSat(C16-C18)O-triglycerides.

As used herein ‘Sat3-triglycerides’ is intended to mean triglycerides with three saturated fatty acid moieties attached to the glycerol backbone. Examples of Sat3-triglycerides may be PPP-triglycerides, PPSt-triglycerides or StStSt-triglycerides.

As used herein ‘Sat2U-triglycerides’ is intended to mean triglycerides with two saturated fatty acid moieties and one unsaturated fatty acid moiety attached to the glycerol backbone, such as SatSatU-triglycerides or SatUSat-triglycerides. They may also be called USat2-triglycerides. Examples of Sat2U-triglycerides may be POP-triglycerides, PPO-triglycerides, or StStO-triglycerides.

As used herein ‘Sat2O-triglycerides’ is intended to mean triglycerides with two saturated fatty acid moieties and one oleic acid moiety attached to the glycerol backbone, such as SatSatO-triglycerides or SatOSat-triglycerides. They may also

be called OSat2-triglycerides. Examples of Sat2O-triglycerides may be POP-triglycerides, PPO-triglycerides or StStO-triglycerides.

5 As used herein 'SatU2-triglycerides' is intended to mean triglycerides with one saturated fatty acid moiety and two unsaturated fatty acid moieties attached to the glycerol backbone, such as SatUU-triglycerides or USatU-triglycerides. They may also be called U2Sat-triglycerides. Examples of SatU2-triglycerides may be POO-triglycerides, OPO-triglycerides, or OStO-triglycerides.

10 As used herein 'U3-triglycerides' is intended to mean triglycerides with three unsaturated fatty acid moieties attached to the glycerol backbone. An example of U3-triglycerides is OOO-triglycerides.

As used herein "modified IUPAC method 2.150b" is wherein the original IUPAC
15 method 2.150b is modified from tempering for 40 hours at 26 degrees Celsius to 24 hours at 20 degrees Celsius.

As used herein 'texture' is defined as the solid fat content determined according to modified IUPAC method 2.150b (24 hours at 20 degrees Celsius.).

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As used herein 'Crystallization speed' is intended to mean the speed with which a fat composition solidifies. The crystallization speed is herein defined as the solid fat content at 20 degrees Celsius in weight percent determined according to method IUPAC 2.150a in percent of the solid fat content at 20 degrees Celsius in weight
25 percent determined according to modified IUPAC method 2.150b. The crystallization speed in percent may be represented as $\text{SFC(IUPAC 2.150a)/SFC(IUPAC 2.150b)} \times 100$ at 20 degrees Celsius.

The invention relates to a texture providing fat composition comprising
30 - at least 25 % Sat(C12-C24)2O-triglycerides by weight of said texture providing fat composition, and

- at least 3.0 % OSatO-triglycerides by weight of said texture providing fat composition,
wherein said texture providing fat composition has a weight-ratio between
- OSatO-triglycerides and
- 5 - the sum of SatOO-triglycerides and OSatO-triglycerides
which is at least 0.30,
wherein Sat is a saturated fatty acid, Sat(C12-C24) is a saturated fatty acid of chain length C12 to C24 and O is oleic acid.

10 The texture providing fat composition according to the invention or any of its embodiments may be particularly useful as an ingredient, typically the major ingredient, in fillings or coatings within confectionary, bakery, dairy, and culinary applications to provide an exceptionally good texture, especially compared to the amounts of saturated fatty acids.

15

A significant advantage of the texture providing fat composition according to the invention or any of its embodiments is that it displays a higher texture than would be expected on the basis of the amounts of saturated fatty acids present in the texture providing fat composition, and it may thus provide a higher texture than

20 traditionally known fats with the same content of saturated fatty acids or a similar solid fat content (SFC) at 20 degrees Celsius.

The texture providing fat composition may furthermore provide a good mouthfeel or not compromise the mouthfeel, which may for example mean that the texture

25 providing fat composition does not display waxiness or may display reduced waxiness compared to other texture providing fats known in the art. The texture providing fat composition may also provide a good nutritional profile, since it is possible to reduce the amount of saturated fatty acids and still obtain a sufficient texture.

30

Thus, a significant advantage of the invention is that more texture per saturated fatty acid is provided. For example, the texture building fat composition may provide 10% to 50% more texture per saturated fatty acid than fat compositions known in the art.

5

The texture providing fat composition gives more texture compared to state of the art fats at the same or even lower content of saturated fatty acids. This may particularly be the case within confectionary applications, dairy applications, bakery applications and culinary applications. Therefore, it may be possible to
10 achieve the same texture with a texture providing fat composition comprising a lower amount of saturated fatty acids. This may give a health benefit, since it is recommended to limit the intake of saturated fatty acids, which are not considered to be healthy.

15 The texture providing fat composition according to the invention or any of its embodiments is especially suited as an ingredient in edible products, especially filling and coatings, or as an ingredient in a food product or in combination with a food product within the confectionery, dairy, bakery and culinary fields. In such cases where the texture providing fat composition is used in an edible product, the
20 advantages the texture providing fat composition possesses may also be obtained in the edible product comprising the texture providing fat composition.

A further significant advantage of the invention is that the texture providing fat may also provide a higher crystallization speed compared to state of the art fats,
25 especially in relation to the amount of saturated fatty acids in the fat composition, which may particularly be the case within confectionary applications, dairy applications, bakery applications or culinary applications. A high crystallization speed may be desired in production since the desired texture is obtained faster and the outcome may be more predictable, since it does not change much over time.

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According to further embodiments of the invention, the texture providing fat composition comprises at least 35 % Sat(C12-C24)2O-triglycerides by weight of said texture providing fat composition, such as at least 45 % Sat(C12-C24)2O-triglycerides by weight of said texture providing fat composition.

5

According to still further embodiments of the invention the texture providing fat composition comprises at least 25 % Sat(C14-C24)2O-triglycerides by weight of said texture providing fat composition, such as at least 35 % Sat(C14-C24)2O-triglycerides by weight of said texture providing fat composition, such as at least 45 % Sat(C14-C24)2O-triglycerides by weight of said texture providing fat composition.

10

According to even further embodiments of the invention the texture providing fat composition comprises at least 25 % Sat(C16-C18)2O-triglycerides by weight of said texture providing fat composition, such as at least 35 % Sat(C16-C18)2O-triglycerides by weight of said texture providing fat composition, such as at least 45 % Sat(C16-C18)2O-triglycerides by weight of said texture providing fat composition.

15

According to an advantageous embodiment of the invention said amount of OSatO-triglycerides is at least 5.0 % by weight of said texture providing fat composition, such as at least 10.0 % by weight of said texture providing fat composition, such as at least 12.0 % by weight of said texture providing fat composition, or such as at least 15.0 % by weight of said texture providing fat composition.

20

The texture providing capability of the fat composition seem to be highly correlated to the amount of OSatO-triglycerides, such as OStO-triglycerides or OPO-triglycerides, and increasing the amount of OSatO-triglycerides may thus provide a higher texture per percent total saturated fatty acid of the fat composition.

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The texture providing fat compositions according to the above embodiment may also provide a higher crystallization speed compared to state of the art fats comprising the same or lower amounts of saturated fatty acids.

- 5 According to further embodiments of the invention the texture providing fat composition comprises OSat(12-24)O-triglycerides in an amount of at least 3.0 % by weight of said texture providing fat composition, such as at least 5.0 % by weight of said texture providing fat composition, such as at least 10.0 % by weight of said texture providing fat composition, such as at least 12.0 % by weight of said texture
10 providing fat composition, or such as at least 15.0 % by weight of said texture providing fat composition, wherein Sat(C12-C24) is a saturated fatty acid of chain length C12 to C24.

- For example, the texture providing fat composition comprises OSat(12-24)O-
15 triglycerides in an amount of 3.0 – 99.0 % by weight of said texture providing fat composition, or 5.0 - 95.0 % by weight of said texture providing fat composition.

- According to still further embodiments of the invention the texture providing fat composition comprises OSat(C14-C24)O-triglycerides in an amount of at least 3.0
20 % by weight of said texture providing fat composition, such as at least 5.0 % by weight of said texture providing fat composition, such as at least 10.0 % by weight of said texture providing fat composition, such as at least 12.0 % by weight of said texture providing fat composition, or such as at least 15.0 % by weight of said texture providing fat composition, wherein Sat(C14-C24) is a saturated fatty acid
25 of chain length C14 to C24.

- For example, the texture providing fat composition comprises OSat(C14-C24)O-
triglycerides in an amount of at least 7.0 % by weight of said texture providing fat composition or at least 17.0 % by weight of said texture providing fat composition.
30 Alternative, the texture providing fat composition comprises OSat(C14-C24)O-

triglycerides in an amount of 3.0 – 99.0 % by weight of said texture providing fat composition, or 5.0 - 95.0 % by weight of said texture providing fat composition.

According to even still further embodiments of the invention the texture providing
5 fat composition comprises OSat(C16-C18)O-triglycerides in an amount at least 3.0
% by weight of said texture providing fat composition, such as at least 5.0 % by
weight of said texture providing fat composition, such as at least 10.0 % by weight
of said texture providing fat composition, such as at least 12.0 % by weight of said
texture providing fat composition, or such as at least 15.0 % by weight of said
10 texture providing fat composition, wherein Sat(C16-C18) is a saturated fatty acid
of chain length C16 to C18.

For example, the texture providing fat composition comprises OSat(C16-C18)O-
triglycerides in an amount of at least 7.0 % by weight of said texture providing fat
15 composition or at least 17.0 % by weight of said texture providing fat composition.
Alternative, the texture providing fat composition comprises OSat(C16-C18)O-
triglycerides in an amount of 3.0 – 99.0 % by weight of said texture providing fat
composition, or 5.0 – 95.0 % by weight of said texture providing fat composition.

20 According to advantageous embodiments of the invention the texture providing fat
composition comprises OPO-triglycerides in an amount of at least 3.0 % by weight
of said texture providing fat composition, such as at least 5.0 % by weight of said
texture providing fat composition, such as at least 10.0 % by weight of said texture
providing fat composition, or such as at least 15.0 % by weight of said texture
25 providing fat composition, wherein P is palmitic acid.

An important advantage of the above embodiment is that it provides a high texture
per saturated fatty acid of the texture providing fat composition. This may be due
to an ability of OSat(C12-C24)O-triglycerides, and maybe in particular OPO-
30 triglycerides and/or OStO-triglycerides, to co-crystallize with tri-glycerides that are
not normally solid at 20 degrees Celsius and thus increasing the solid fat content at

20 degrees Celsius. It may furthermore provide a very good mouthfeel without waxiness, which may be due to the melting point of OSat(C12-C24)O-triglycerides, such as for example OStO-triglycerides or OPO-triglycerides, which is relatively low, so low so it is able to melt in the mouth. Thus an important advantage of the
5 above embodiment is that it may also be especially good at increasing the texture per percent of saturated fatty acids in the fat composition, while retaining or increasing pleasant sensoric properties of the fat composition and/or the edible product, such as melting pleasantly in the mouth. Furthermore, an important advantage of the above embodiment is that the miscibility with other fats, for
10 example especially with fats such as cocoa butter or other similar fats comprising a high amount of palmitate and/or stearate, may be significantly increased due to the similarity of the fatty acids. Yet another advantage of the above embodiment is that it may provide a particularly high crystallization speed compared to state of the art texture building fats, especially in relation to the amount of saturated fatty acids in
15 the fat composition, which may be particularly useful in the field of confectionary applications, dairy applications, bakery applications or culinary applications.

Therefore, the texture providing fat composition may advantageously comprise OPO-triglycerides and/or OStO-triglycerides in an amount of at least 7.0 % by
20 weight of said texture providing fat composition or at least 17.0 % by weight of said texture providing fat composition. Alternative, the texture providing fat composition comprises OPO-triglycerides and/or OStO-triglycerides in an amount of 3.0 – 99.0 % by weight of said texture providing fat composition, or 5.0 – 95.0 % by weight of said texture providing fat composition.

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According to further embodiments of the invention said texture providing fat composition comprises OStO-triglycerides in an amount of at least 3.0 % by weight of said texture providing fat composition, such as at least 5.0 % by weight of said texture providing fat composition, such as at least 10.0 % by weight of said texture
30 providing fat composition, or such as at least 15.0 % by weight of said texture providing fat composition, wherein St is stearic acid.

According to further embodiments of the invention said weight-ratio between OSatO-triglycerides and the sum of SatOO and OSatO is at least 0.35, such as at least 0.40, such as at least 0.50, such as at least 0.60, such as at least 0.70, such as at least 0.80.

According to still further embodiments of the invention said texture providing fat composition has a weight-ratio between

- OSat(C12-C24)O-triglycerides and
- 10 - the sum of Sat(C12-C24)OO-triglycerides and OSat(C12-C24)O-triglycerides

which is at least 0.30, such as at least 0.40, such as at least 0.50, such as at least 0.60, such as at least 0.70, such as at least 0.80,
wherein Sat(C12-C24) is a saturated fatty acid of chain length C12 to C24.

15

According to still even further embodiments of the invention said texture providing fat composition has a weight-ratio between

- OSat(C14-C24)O-triglycerides and
- the sum of Sat(C14-C24)OO-triglycerides and OSat(C14-C24)O-
- 20 triglycerides

which is at least 0.30, such as at least 0.40, such as at least 0.50, such as at least 0.60, such as at least 0.70, such as at least 0.80,
wherein Sat(C14-C24) is a saturated fatty acid of chain length C14 to C24.

25 According to further embodiments of the invention said texture providing fat composition has a weight-ratio between

- OSat(C16-C18)O-triglycerides and
- the sum of Sat(C16-C18)OO-triglycerides and OSat(C16-C18)O-
- 30 triglycerides

which is at least 0.30, such as at least 0.40, such as at least 0.50, such as at least 0.60, such as at least 0.70, such as at least 0.80,

wherein Sat(C16-C18) is a saturated fatty acid of chain length C16 to C18.

According to an advantageous embodiment of the invention said texture providing fat composition has a weight-ratio between

- 5 - OPO-triglycerides and
 - the sum of POO-triglycerides and OPO-triglycerides

which is at least 0.30, such as at least 0.40, such as at least 0.50, such as at least 0.60, such as at least 0.70, such as at least 0.80.

- 10 An important advantage of the above embodiment is that it may provide a high texture per saturated fatty acid of the texture providing fat composition. This may in particular be the case when the amount of OPO-triglycerides in the texture providing fat composition is high, such as for example higher than the amount of POO-triglycerides.

15

According to an advantageous embodiment of the invention said texture providing fat composition has a weight-ratio between

- OStO-triglycerides and
 - the sum of StOO-triglycerides and OStO-triglycerides

- 20 which is at least 0.30, such as at least 0.40, such as at least 0.50, such as at least 0.60, such as at least 0.70, such as at least 0.80.

- An important advantage of the above embodiment is that it may provide a high texture per saturated fatty acid of the texture providing fat composition. This may
25 in particular be the case when the amount of OStO-triglycerides in the texture providing fat composition is high, such as for example higher than the amount of StOO-triglycerides.

- According to further embodiments of the invention said texture providing fat
30 composition comprises Sat3-triglycerides in an amount of between 1 to 15 % by weight of said texture providing fat composition, such as between 1 to 10 % by

weight of said texture providing fat composition, such as between 1 to 5 % by weight of said texture providing fat composition.

- For example, the texture providing fat composition comprises Sat3-triglycerides in an amount of between 1 to 9 % by weight of said texture providing fat composition, such as between 1 to 8 % by weight of said texture providing fat composition, or between 1 to 7 % by weight of said texture providing fat composition, or even between 1 to 6 % by weight of said texture providing fat composition, such as between 1 to 5 % by weight of said texture providing fat composition.
- Alternatively, the texture providing fat composition may also comprise Sat3-triglycerides in an amount of between 2 to 7 % by weight of said texture providing fat composition or between 3 to 6 % by weight of said texture providing fat composition.
- According to still further embodiments of the invention said texture providing fat composition has a weight-ratio between
- the solid fat content at 20 degrees Celsius, as determined by modified IUPAC method 2.150b, and
 - the amount of saturated fatty acids
- which is at least 0.85, such as at least 0.90, such as at least 1.00, such as at least 1.10, such as at least 1.20, such as at least 1.25.

According to even further embodiments of the invention, the texture providing fat composition has a weight-ratio between the texture at 20 degrees Celsius and the amount of saturated fatty acids which is at least 0.85, such as at least 0.90, such as at least 1.00, such as at least 1.10, such as at least 1.20, such as at least 1.25, wherein the texture is measured as the solid fat content at 20 degrees Celsius determined by modified IUPAC method 2.150b.

According to still even further embodiments of the invention said texture providing fat composition has a crystallization speed, which is at least 0.85, such as at least 0.90, such as at least 0.92, such as at least 0.94, such as at least 0.96, wherein the crystallization speed is defined as a ratio between

- 5 - the solid fat content determined by IUPAC method 2.150a at 20 degrees Celsius and
- the solid fat content determined by modified IUPAC method 2.150b at 20 degrees Celsius.

- 10 The sum of Sat3-triglycerides and Sat2O-triglycerides may normally be the triglycerides, which contributes most to the solid fat content at 20 degrees Celsius.

According to an advantageous embodiment of the invention said texture providing fat composition has a weight-ratio between

- 15 - the sum of Sat3-triglycerides and Sat2O-triglycerides and
- the solid fat content at 20 degrees Celsius, as determined by the modified IUPAC method 2.150b,

which is less than 1.00, such as less than 0.95.

- 20 It has surprisingly been found that the sum of Sat3-triglycerides and Sat2O-triglycerides may be lower than the solid fat content at 20 degrees Celsius, as determined by the modified IUPAC method 2.150b. Without being bound to any specific theory, this may indicate that the texture providing fat composition according to embodiments of the present invention, may solidify SatU2-
- 25 triglycerides that may normally not be solid at 20 degrees Celsius. This may imply that a sort of co-crystallization is happening, when the amount of OSatO-triglycerides, such as OPO-triglycerides and/or OStO-triglycerides, is at least 3 % by weight of said texture providing fat composition and the ratio between OSatO-triglycerides and the sum of SatOO-triglycerides and OSatO-triglycerides is at least
- 30 0.30, which may give a higher solid fat content at 20 degrees Celsius than would be

expected based on the combined amounts of Sat3 and Sat2O in the texture providing fat composition according to embodiments of the present invention.

According to further embodiments of the invention the amount of saturated fatty acids is at least 35 % by weight of said texture providing fat composition, such as at least 40 % by weight of said texture providing fat composition.

For example, the amount of saturated fatty acids may be at least 45 % by weight of the texture providing fat composition or at least 50 % by weight of said texture providing fat composition or even at least 55 % by weight of said texture providing fat composition. Alternatively, the amount of saturated fatty acids may thus be between 35 to 50 % or 45 to 55 % by weight of said texture providing fat composition.

According to still further embodiments of the invention the solid fat content at 20 degrees Celsius is at least 25 %, such as at least 30%, such as at least 35 %, such as at least 40 %, such as at least 45 %, such as at least 50 %, such as at least 55 %, such as at least 60 %, wherein the solid fat content is determined by the modified IUPAC method 2.150b. The solid fat content may for example be 25 to 55 %.

According to an advantageous embodiment of the invention said texture providing fat composition comprises OSatO-triglycerides, such as for example OStO-triglycerides or OPO-triglycerides, obtained by interesterification. In an advantageous embodiment of the invention all the OSatO-triglycerides, such as for example OStO-triglycerides or OPO-triglycerides, are obtained by interesterification.

Triglycerides having a saturated fatty acid in the sn-2 position of the triglyceride, and oleic acid in the sn-1 and sn-3 position of the triglyceride may be difficult to obtain from vegetable sources, even though small levels may be found in some sources. The saturated fatty acid in the sn-2 position may for example be myristic

acid, palmitic acid, stearic acid, arachidic acid, behenic acid or lignoceric acid. Triglycerides having a saturated fatty acid in the sn-2 position of the triglyceride, and oleic acid in the sn-1 and sn-3 position of the triglyceride may therefore advantageously be obtained by chemical or enzymatic interesterification. In
5 interesterification, the acyl moiety is exchanged either between an ester and an acid (acidolysis), ester and alcohol (alcoholysis) or two esters (acyl exchange). By chemically catalyzed interesterification it is usually difficult to introduce the desired acyl groups onto the specific positions of glycerol because the reaction occurs randomly with respect to position. In recent years, the use of for example
10 lipases (triacylglycerol acylhydrolases, EG 3.1.1.3) as biocatalysts for interesterification reactions has become of great potential industrial interest for the production of useful triacylglycerol mixtures, such as for example triglycerides having a saturated fatty acid in the sn-2 position of the triglyceride, and oleic acid in the sn-1 and sn-3 position of the triglyceride. Lipases are esterases that catalyze
15 hydrolysis and synthesis of glycerol esters.

Triglycerides having a saturated fatty acid in the sn-2 position of the triglyceride, and oleic acid in the sn-1 and sn-3 position of the triglyceride may also be obtained from unicellular organisms. Edible fats obtained from unicellular organisms may
20 be obtained by various processes, such as by a process for the preparation of fats, where the process comprises cultivating a fat-producing microorganism and subsequently recovering the fats accumulated in the microorganism. It is known that fats and oils can be produced by cultivating oil/fat-producing microorganisms like algae, bacteria, molds and yeasts. Such microorganisms typically synthesize
25 the lipids in the course of their cellular metabolism.

According to an embodiment of the invention, the texture providing fat composition comprises OSat(C12-C24)O-triglycerides obtained by interesterification in an amount of 4.0 – 99.9 % by weight of the texture providing fat composition.

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According to a further embodiment of the invention, the texture providing fat composition comprises OSat(C14-C24)O-triglycerides obtained by interesterification in an amount of 4.0 – 99.9 % by weight of the texture providing fat composition.

5

According to a still further embodiment of the invention, the texture providing fat composition comprises OSat(C16-C18)O-triglycerides obtained by interesterification in an amount of 4.0 – 99.9 % by weight of the texture providing fat composition.

10

OStO-triglycerides are not normally found in nature in larger amounts, and may thus advantageously be obtained by interesterification, for example by interesterification of a vegetable fat in the presence of an enzyme and a stearate source. Thus, according to a still further embodiment of the invention, the texture providing fat composition comprises OStO-triglycerides obtained by interesterification in an amount of 4.0 – 99.9 % by weight of the texture providing fat composition.

15

OPO-triglycerides are not normally found in nature in larger amounts, and may thus advantageously be obtained by interesterification, for example by interesterification of a vegetable fat in the presence of an enzyme and a palmitate source. Thus, according to an embodiment of the invention, the texture providing fat composition comprises OPO-triglycerides obtained by interesterification in an amount of 4.0 - 99.9 % by weight of the texture providing fat composition.

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According to embodiments of the invention the combined amount of U3-triglycerides and U2Sat-triglycerides is more than 31 % by weight of said texture providing fat composition, such as more than 32 % by weight of said texture providing fat composition, such as more than 35 % by weight of said texture providing fat composition, or such as between 35 to 44 % by weight of said texture providing fat composition.

30

For example, the combined amount of U3-triglycerides and U2Sat-triglycerides is more than 33 % by weight of the texture providing fat composition or more than 34 % by weight of the texture providing fat composition or even more than 36 % by weight of the texture providing fat composition, such as more than 37 % by weight of the texture providing fat composition. The combined amount of U3-triglycerides and U2Sat-triglycerides may also be more than 38 % by weight of the texture providing fat composition, such as more than 39 % by weight of said texture providing fat composition.

10

According to an advantageous embodiment of the invention, the amount of U3-triglycerides is at least 4 % by weight of said texture providing fat composition, such as at least 6 % by weight of said texture providing fat composition, such as at least 7 % by weight of said texture providing fat composition, or such as between 5-30 % by weight of said texture providing fat composition.

15

It can often be seen that U3-triglycerides will be added to a fat composition, for example when making a filling or a coating. U3-triglycerides may for example be obtained from different kinds of nut fats. U3-triglycerides will generally make the fat composition softer due to a lower melting point of triglycerides with unsaturated fatty acids compared to the corresponding triglycerides with saturated fatty acids. Hence, using a texture providing fat composition according to the present invention it may be possible to increase the amount of U3-triglycerides in the fat composition, while maintaining a high degree of texture per saturated fatty acid. For example, it may be possible to increase the amount of U3-triglycerides to more than 10% by weight of the texture providing fat composition, while maintaining a texture at 20 degrees Celsius per saturated fatty acid, which is above 0.90, such as above 1.00 and/or a crystallization speed, which is above 92 %.

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When the texture providing fat composition according to the invention or any of its embodiments comprises both fat obtained by interesterification as well as vegetable

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fat and/or milk fat it may provide a significant advantage. In this way it may be possible to optimize the properties, such as texture per saturated fatty acid and/or sensoric, of the texture providing fat composition, by adjusting the amounts of different types of fats, especially also possibly with respect to production cost.

5

Thus, according to an advantageous embodiment of the invention said texture providing fat composition comprises, further to the OSatO-triglycerides, vegetable fat in an amount of 0 - 60% by weight of said texture providing fat composition, such as 5 - 50% by weight of said texture providing fat composition. For example, 10 said texture providing fat composition may comprise vegetable fat in an amount of 0 - 50 % by weight of said texture providing fat composition, such as 0 - 40% by weight of said texture providing fat composition, such as 0 - 30 % by weight of said texture providing fat composition, such as 0 - 20 % by weight of said texture providing fat composition, such as 0 - 10 % by weight of said texture providing fat composition, such as 0 - 5 % by weight of said texture providing fat composition, 15 such as 0 - 3 % by weight of said texture providing fat composition, such as 0 - 2 % by weight of said texture providing fat composition or such as 0 - 1 % by weight of said texture providing fat composition. The texture providing fat composition may also for example comprise vegetable fat in an amount of 1 - 50 % by weight 20 of said texture providing fat composition or in an amount of 5 - 40% by weight of said texture providing fat composition. It may be difficult to obtain OSatO-triglycerides, such as for example OPO-triglycerides or OStO-triglycerides from vegetable fat, and therefore the texture providing fat composition according to the invention or any of its embodiments may typically comprise at least 40 % fat obtained by interesterification. It may however provide an especially good texture 25 when interesterified fat comprising a high amount of at least 3% OSatO-triglycerides, such as OPO-triglycerides and/or OStO-triglycerides, is mixed with vegetable fat. Accordingly, the texture providing fat composition may for example consist of 50 % fat obtained by interesterification and 50% vegetable fat, such as 30 for example cocoa butter, hazelnut oil, a shea oil fraction or a palm stearin fraction.

According to an advantageous embodiment of the invention said vegetable fat comprises fat obtained from rapeseed, corn, soy, sunflower seed, cotton seed, maize, olive, hazelnut, groundnut, palm, shea, cocoa, illipe, kokum, sal, allanblackia, mowrah, mango, or any fraction or any combination thereof. It may
5 for example provide a particular good texture when the vegetable fat comprises or is a palm stearin fat fraction.

According to further embodiments of the invention said texture providing fat composition further comprises 0 – 40 % milk fat by weight of said texture providing
10 fat composition, such as 2 – 30 % by weight of said texture providing fat composition, such as 10 – 25 % by weight of said texture providing fat composition. The texture providing fat composition may thus for example consist of 50 % fat obtained by interesterification, 40 % vegetable fat and 10 % milk fat or 90 % fat obtained by interesterification and 10 % milk fat. When no other components than
15 interesterified fat, vegetable fat and milk fat is comprised in the texture providing fat composition, the amounts of interesterified fat, vegetable fat and milk fat should of course always amount to 100%.

According to still further embodiments of the invention said milk fat comprises
20 milk fat obtained from animal origin, such as milk fat obtained from cow.

According to an embodiment of the invention the amount of lauric acid is 10 % by weight of said texture providing fat composition or less.

For example, the amount of lauric acid is 5 % or less by weight of said texture
25 providing fat composition, such as 3 % or less by weight of said texture providing fat composition, or even 1 % or less by weight of said texture providing fat composition or even free of lauric acid.

According to further embodiments of the invention the amount of trans fatty acid is
30 10% or less by weight of said texture providing fat composition.

For example, the amount of trans fatty acids is 5 % or less by weight of said texture providing fat composition, such as 3 % or less by weight of said texture providing fat composition, or even 1 % or less by weight of said texture providing fat composition or even free of trans fatty acids.

5

The texture providing fat composition is especially suited as an ingredient, typically the main ingredient, in edible products, such as confectionary products, dairy products, bakery products and culinary products. Examples of such edible products may be coatings, fillings, creams, spreads, whipping cream, dressings, sauces and
10 soups. The texture providing fat composition may be exceptionally suited as the major ingredient in coatings and fillings to provide an exceptionally high texture relative the amounts of saturated fatty acids.

Thus, the invention relates in another aspect to an edible product comprising said
15 texture providing fat composition according to the invention or any of its embodiments in an amount of 15 – 99.9 % by weight of said edible product. The edible product may thus for example comprise said texture providing fat composition in an amount of 25 – 65 % by weight of said edible product.

20 The edible product may contain other ingredients than the texture providing fat composition, for example one, two or several fillers and possibly also water. Thus, according to an advantageous embodiment of the invention, said edible product further comprises

- filler in an amount of 0.1 – 85 % by weight of said edible product and
- 25 - water in an amount of 0 – 20 % by weight of said edible product.

The combined amounts of the texture providing fat composition, filler and potentially water, if they are the only ingredients in the edible product, should of course never add up to more than 100% by weight of the edible product.

30

Filler is typically a non-glyceride edible solid material, ideally in a powdery form.

The filler material used in the edible product of the present invention or any of its embodiments is usually a non-glyceride, edible solid material. A conventional filler material often comprises at least one component selected from the group consisting of sugar, flour, starch, skimmed milk powder, whole milk powder, whey powder, cocoa powder, coffee powder, food grade organic and inorganic solid powders, and blends of two or more of these. However, other fillers considered suitable by the person skilled in the art may be used as well. The edible product may further comprise other dry ingredients, such as for example nuts.

The texture providing fat composition or the edible product may be especially suited as an ingredient in a food product or in combination with a food product. The invention relates in a further aspect to a food product, such as a dairy food product, a confectionary food product, a bakery food product or a culinary food product, comprising the texture providing fat composition as described herein in any of its embodiments or the edible product as described herein in any of its embodiments. Examples of such food products may be a chocolate, a filled chocolate product, a biscuit coated with a cream layer wherein the cream layer as such may optionally be further coated with a coating, a biscuit having a cream layer sandwiched between two or more biscuit layers, extruded products with an interior filling, baked products with a filling, filled or coated confectionery products, filled or coated culinary products, and any other food product known to the person skilled in the art.

The invention relates in an even further aspect to a method for producing the texture providing fat composition according to the invention or any of its embodiments, said method comprising the steps of

- providing a vegetable fat
- providing a milk fat,
- providing an interesterified fat comprising at least 3.0 % OSatO-triglycerides by weight of said interesterified fat,
- mixing said interesterified fat with said vegetable fat and said milk fat

to obtain said texture providing fat composition or any of its embodiments, wherein said texture providing fat composition comprises

- at least 25 % Sat(C12-C24)2O-triglycerides by weight of said texture providing fat composition, and
- 5 - at least 3.0 % OSatO-triglycerides by weight of said texture providing fat composition,

wherein said texture providing fat composition has a weight-ratio between

- OSatO-triglycerides and
 - the sum of SatOO-triglycerides and OSatO-triglycerides
- 10 which is at least 0.30,

wherein Sat is a saturated fatty acid, Sat(C12-C24) is a saturated fatty acid of chain length C12 to C24 and O is oleic acid.

The invention relates in a still even further aspect to a use of the texture providing
15 fat composition according to the invention or any of its embodiments or produced by the method of the invention or any of its embodiments for the production of an edible product or a food product.

According to an advantageous embodiment of the invention said texture providing
20 fat composition is used as an ingredient in coating or filling for confectionery, bakery, dairy or culinary products.

The texture providing fat composition according to the invention or any of its
25 embodiments may be particular useful as an ingredient, typically the major ingredient, in fillings or coatings within confectionary, bakery, dairy, and culinary applications to provide an exceptionally good texture, especially compared to the amounts of saturated fatty acids.

For example, the texture providing fat composition may be used as an ingredient in
30 coating or filling for confectionery, bakery, dairy or culinary products in an amount of 1-99% by weight of the coating or filling, or in amount of 1-80% by weight of

the coating or filling or in an amount of 1-60% by weight of the coating or filling, or even 1-50% by weight of the coating or filling.

In further aspects, the invention relates to use of the edible product according to the
5 invention or any of its embodiments for the production of a food product.

EXAMPLES

Example 1 – Texture measurements of different fat compositions with comparable SAFA content

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Table 1 below shows the measured amounts and ratios of certain types of triglycerides for texture providing fat composition I and reference fat compositions I and II.

- 10 Texture providing fat composition I is a blend of a Palm mid fraction iodine value 33 (IV 33) and a OPO-triglycerides rich component, which is achieved by 1,3 specific enzymatic interesterification of a palm stearin (iodine value < 5) and oleic acid or an alcohol ester of oleic acid and having a content of OPO-triglycerides at 31 % and a total content of saturated fatty acids at 39.8%, to achieve the final texture
- 15 providing composition I with a total content of saturated fatty acid at 50.5%.

Table 1

	Texture providing fat composition I	Reference fat composition I	Reference fat composition II
SAFA in weight percent	50.5	49.8	49.6
POP-triglycerides in weight percent	39.1	48.8	44.7
Sat2O-triglycerides in weight percent	50.5	60.8	55.1
SatSatU-triglycerides/ SatUSat-triglycerides	0.44	0.08	0.14

Table 1 continues on next page

POO-triglycerides + OPO-triglycerides in weight percent	21	5	8
OPO-triglycerides in weight percent	17	<0.5	1
OPO-triglycerides/(POO-triglycerides + OPO-triglycerides) in weight percent	85	<10	12.5
SatU2-triglycerides in weight percent	30.3	8.5	13.2
U3-triglycerides in weight percent	8.0	20.1	17.3
Sat3-triglycerides in weight percent	4.1	2.7	1.5
Solid fat content at 20 degrees Celsius determined by IUPAC method 2.150a	61.1	45.5	31.4
Solid fat content at 20 degrees Celsius determined by modified IUPAC method 2.150b	63.4	56.5	41.6
Texture at 20 degrees Celsius / SAFA	1.26	1.13	0.83
Crystallization speed in %	96.4	80.5	75.5

Table 1. Content of certain triglycerides, solid fat content, texture and crystallization speed of texture providing fat composition I and reference fat compositions I and II.

Reference fat I is a blend of Palm mid fraction iodine value 33 (IV 33) and high
5 oleic sunflower oil and reference fat II is a blend of palm mid fraction iodine value
40 (IV 40) and a high oleic sunflower oil. Both two (reference fat I and II) are

available fats on market today and are sold as having a special high texture per saturated fatty acids.

5 With a texture providing fat composition according to embodiments of the invention, such as Texture providing fat composition I, it is possible to obtain a very high ratio of 1.26 of texture relative to the amount of saturated fatty acids.

As can also be seen from table 1, the texture building fat composition I, which comprises more than 3% (w/w) of OPO-triglycerides and a weight-ratio between
10 OPO-triglycerides and the sum of POO-triglycerides and OPO-triglycerides of more than 0.30, gives 10 – 50% more texture (determined as the solid fat content at 20 degrees Celsius as measured by modified method IUPAC 2.150b, which is tempered at 20 degrees Celsius for 24 hours) per saturated fatty acid than reference fat compositions I and II.

15

Example 2 – Texture measurements of different fat compositions with varying content of OPO-triglycerides

Table 2 below shows the measured amounts and ratios of certain types of
20 triglycerides for texture providing fat composition I, II, III, IV and V.

Texture providing fat composition I is the same fat composition as Texture providing fat composition I in example 1.

25 Texture providing fat composition II is a blend of a Palm mid fraction iodine value 40 (IV 40) and a OPO-triglycerides rich component, which is achieved by 1,3 specific enzymatic interesterification of a palm stearin (iodine value < 5) and oleic acid or an alcohol ester of oleic acid and having a content of OPO-triglycerides at 31 % and a total content of saturated fatty acids at 39.8%, to achieve the final texture
30 providing composition II with a total content of saturated fatty acid at 51.0 %.

Texture providing fat compositions III, IV and V are blends of Palm mid fraction iodine value 33 (IV 33) and the above mentioned OPO-triglycerides rich component, which is achieved by 1,3 specific enzymatic interesterification of a palm stearin (iodine value < 5) and oleic acid or an alcohol ester of oleic acid, and
 5 a chemical interesterified palm olein iodine value 65 (IV 65). By changing the ratio between the 3 above mentioned components it is possible to achieve the texture providing fat compositions III, IV and V in table 2.

Table 2

	Texture provi- ding fat com- position I	Texture provi- ding fat com- position II	Texture provi- ding fat com- position III	Texture provi- ding fat com- position IV	Texture provi- ding fat com- position V
SAFA in weight percent	50.5	51.0	48.6	49.4	50.9
POP-triglycerides in weight percent	39.1	38.5	34.9	36.3	39.2
Sat2O-triglycerides in weight percent	50.5	49.1	44.6	46.2	49.4
SatSatU-triglycerides/ SatUSat-triglycerides	0.44	0.45	0.46	0.39	0.31
POO-triglycerides + OPO-triglycerides in weight percent	21	21	19	15	10
OPO-triglycerides in weight percent	17	15	12	7	3

10 *Table 2 continues*

OPO-triglycerides/ (POO-triglycerides +OPOtriglycerides) in weight percent	85	75	63	47	30
SatU2-triglycerides in weight percent	30.3	29.9	31.9	29.8	26.7
U3-triglycerides in weight percent	8.0	7.3	10.3	10.2	9.5
Sat3-triglycerides in weight percent	4.1	3.2	5.2	5.3	5.3
Solid fat content at 20 degrees Celsius determined by IUPAC method 2.150a	61.1	53.1	47.0	44.0	41.1
Solid fat content at 20 degrees Celsius determined by modified IUPAC method 2.150b	63.4	56.1	48.6	46.4	44.8
Texture at 20 degrees Celsius/ SAFA	1.26	1.10	1.00	0.93	0.88
Crystallization speed in %	96.4	94.7	96.7	94.8	91.7

Table 2. Content of certain triglycerides, solid fat content, texture and crystallization speed of texture providing fat compositions I, II, III, IV and V.

As seen from table 2, there seems to be a direct correlation between the amount of OPO-triglycerides and the texture at 20 degrees Celsius per saturated fatty acid. A higher amount of OPO-triglycerides and a higher weight-ratio between OPO-triglycerides and the sum of POO-triglycerides and OPO-triglycerides provides
 5 more texture per saturated fatty acid (SAFA) in Sat2O rich fat compositions.

Example 3 – Comparisons with commercially available fats

Table 3 below shows the measured amounts and ratios of certain types of triglycerides for texture providing fat composition I and reference fat compositions
 10 III, IV and V.

Texture providing fat composition I is the same fat composition as Texture providing fat I in example 1.

15

Table 3

	Texture providing fat composi- tion I	Reference fat composi- tion III	Reference fat composi- tion IV	Reference fat composi- tion V
SAFA in weight percent	50.5	53.8	50.3	53.2
POP-triglycerides in weight percent	39.1	14.8	38.0	37.3
Sat ₂ O-triglycerides in weight percent	50.5	52.2	47.1	47.5
SatSatU- triglycerides/SatUSat- triglycerides	0.44	1.40	0.15	0.42

Table 3 continues

POO-triglycerides + OPO-triglycerides in weight percent	21	11	19	16
OPO-triglycerides in weight percent	17	2	< 0.5	3
OPO-triglycerides/(POO-triglycerides + OPO-triglycerides) in weight percent	85	9	2.6	19
SatU2-triglycerides in weight percent	30.3	28.0	32.8	28.3
U3-triglycerides in weight percent	8.0	4.7	5.1	5.4
Sat3-triglycerides in weight percent	4.1	4.3	2.3	5.8
Solid fat content at 20 degrees Celsius determined by IUPAC method 2.150a	61.1	27.7	22.9	37.1
Solid fat content at 20 degrees Celsius determined by modified IUPAC method 2.150b	63.4	35.1	33.4	39.3
Texture at 20 degrees Celsius / SAFA	1.26	0.65	0.66	0.74
Crystallization speed in %	96.4	78.9	68.5	94.4

Table 3. Content of certain triglycerides, solid fat content, texture and crystallization speed of texture providing fat compositions I and reference fat compositions III, IV and V.

- 5 It can be seen from table 3 that Texture providing fat composition I gives a much higher amount of texture per saturated fatty acid than reference fat composition III,

IV and V, which are fats commercially available on the market today. The crystallization speed of Texture providing fat composition I is also faster than Reference fat composition III, IV and V.

5 Example 4 – Texture measurements of different fat compositions with varying content of U3-triglycerides

Table 4 below shows the measured amounts and ratios of certain types of triglycerides for texture providing fat composition VI and reference fat compositions III, IV and V.

Table 4

	Texture providing fat composi- tion VI	Reference fat composi- tion III	Reference fat composi- tion IV	Reference fat composi- tion V
SAFA in weight percent	50.2	53.8	50.3	53.2
POP-triglycerides in weight percent	41.4	14.8	38.0	37.3
Sat ₂ O-triglycerides in weight percent	52.2	52.2	47.1	47.5
SatSatU-triglycerides/ SatUSat-triglycerides	0.44	1.40	0.15	0.42
POO-triglycerides + OPO-triglycerides in weight percent	13	11	19	16

Table 4 continues

OPO-triglycerides in weight percent	8	2	< 0.5	3
OPO-triglycerides/(POO-triglycerides + OPO-triglycerides) in weight percent	62	18	2.6	19
SatU2-triglycerides in weight percent	21.5	28.0	32.8	28.3
U3-triglycerides in weight percent	14.0	4.7	5.1	5.4
Sat3-triglycerides in weight percent	4.2	4.3	2.3	5.8
Solid fat content at 20 degrees Celsius determined by IUPAC method 2.150a	42.6	27.7	22.9	37.1
Solid fat content at 20 degrees Celsius determined by modified IUPAC method 2.150b	46.0	35.1	33.4	39.3
Texture at 20 degrees Celsius / SAFA	0.92	0.65	0.66	0.74
Crystallization speed in %	92.6	78.9	68.5	94.4

Table 4. Content of certain triglycerides, solid fat content, texture and crystallization speed of texture providing fat compositions VI and reference fat compositions III, IV and V.

- 5 Texture providing fat VI is a mixture of palm mid fraction iodine value 33 (IV 33) and a OPO-triglycerides rich component, which is achieved by 1,3 specific enzymatic interesterification of a palm stearin (iodine value < 5) and oleic acid or

an alcohol ester of oleic acid and having a content of OPO-triglycerides at 31 % and a chemical interesterified palm olein iodine value 65 (IV 65) and a high oleic sunflower oil to achieve the final triclyceride composition as mentioned in table 4.

- 5 As can be seen from table 4, it is possible to increase the amount of U3-triglycerides in the texture providing fat composition to at least 14 % by weight of the texture providing fat composition, while also providing a high texture of 0.92 at 20 degrees Celsius per saturated fatty acid. It gives plenty of possibilities to make many applications with nut oil of different origins and still keep a high texture.

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Example 5 – Texture measurement of different fat compositions with varying chain lengths of their respective fatty acids

- 15 Table 5 shows the relative fatty acids composition of the raw materials measure by gas chromatography (IUPAC 2.304) after methylation (IUPAC 2.301). Numbers are given in wt%.

The fats used are labelled as POP, StOSt, OPO, OStO and OOO. The OPO and OStO were made by enzymatic interesterification to ensure a high level of the given triglycerides.

- 20 Table 6 shows five different fats made from the mentioned raw material. Each of these were made with 50% SAFA and then diluted with the OOO rich fat to 40, 30 and 20% SAFA.

Table 7 shows the measured solid fat content of each of the five fats as well as the calculated texture defined in the same way as the earlier examples.

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- The three of the five different fats in table 7 are based on the solution of the invention (Texture providing fat composition A, B and C). This is the StOSt+OStO (Texture providing fat composition A), POP+OPO (Texture providing fat composition B) and StOSt+OPO (Texture providing fat composition C) fats. The StOSt+OOO (Reference fat composition A) and POP+OOO (Reference fat composition B) fats are based on known texture providing solutions. As seen from
- 30

table 7 at 50% SAFA, the StOSt+OStO fat (Texture providing fat composition A) is the best solution followed by the StOSt+OOO (Reference fat composition A), POP+OPO (Texture providing fat composition B) and StOSt+OPO (Texture providing fat composition C) fats. The POP+OOO fat (Reference fat composition B) is the worst solution. Interestingly when going to 40% SAFA the StOSt+OStO and StOSt+OPO (Texture providing fat composition A and Texture providing fat composition C) both retain their texture very well, whereas the StOSt+OOO (Reference fat composition A) lose 27% texture. At 20 and 30% SAFA the three solutions StOSt+OStO, StOSt+OPO and StOSt+OOO (Texture providing fat composition A, Texture providing fat composition C and Reference fat composition A) are comparable. This is explained by the StOSt having the highest impact at lower SAFA content. The co-crystallization of StOSt and OStO(or OPO) needs to have a critical concentration for the co-crystallization to occur.

From the data it can be concluded that the technology of the present invention is better than the known technologies if you compare palmitic acids solutions, hence POP+OPO vs POP+OOO (Texture providing fat composition B vs. Reference fat composition B), and if you compare stearic acid solution, hence StOSt+OStO vs StOSt+OOO (Texture providing fat composition A vs. Reference fat composition A). In both cases the presented technology is better than the known technology.

Table 5

Fatty acid	POP rich fat: Palm mid fraction IV 33	StOSt rich fat: Shea stearin IV 36	OPO rich fat	OStO rich fat	OOO rich fat: High oleic sun-flower oil
C6:0					
C8:0					
C10:0					
C12:0			0.1	0.1	
C14:0	0.8		0.4	0.1	

C15:0					
C16:0	55.4	3.8	33.5	4.9	3.7
C16:1 cis/sum					0.1
C16:1 trans/sum					
C17:0	0.2				
C18:0	7.6	57.8	5.5	36.9	2.9
C18:1 cis/sum	32	32.5	51.2	49	85.5
C18:1 trans/sum		0.2	0.5	0.4	
C18:2 cis/sum	3.1	3.4	7.3	7.3	5.8
C18:2 trans/sum			0.5	0.2	
C18:3 cis/sum					0.2
C18:3 trans/sum					
C20:0	0.6	1.8	0.4	0.4	0.3
C20:1 cis/sum			0.3	0.2	0.3
C22:0		0.2		0.1	0.9
C22:1 cis/sum					
C24:0		0.1			0.3
C24:1 cis/sum					

Table 6

	Texture providing fat composition A	Reference fat composition A	Texture providing fat composition B	Reference fat composition B	Texture providing fat composition C
	StOSt+ OStO fat	StOSt+ OOO fat	POP+ OPO fat	POP+ OOO fat	StOSt+ OPO fat
POP			45%	75%	
StOSt	51%	76%			45%
OPO			55%		55%
OStO	40%				
OOO	9%	24%		25%	

5

Table 7

		Texture provi- ding fat compos ition A	Refe- rence fat compo- sition A	Texture provi- ding fat composition B	Refe- rence fat compo- sition B	Texture provi- ding fat compo- sition C
	SAFA (%)	StOSt+ OStO fat	StOSt+ OOO fat	POP+ OPO fat	POP+ OOO fat	StOSt+ OPO fat
Solid fat content at 20°C determined by IUPAC method 2.150a	50	73.3	58.4	60.8	48.6	66.6

Solid fat content at 20°C determined by modified IUPAC method 2.150b	50	72.9	65.4	65.0	56.5	67.1
Texture at 20°C/ SAFA		1.46	1.31	1.30	1.13	1.34
Solid fat content at 20°C determined by IUPAC method 2.150a	40	46.0	29.2	31.0	27.3	44.1
Solid fat content at 20°C determined by modified IUPAC method 2.150b	40	57.4	38.5	28.3	35.5	44.3
Texture at 20°C/ SAFA		1.44	0.96	0.71	0.89	1.11
Solid fat content at 20°C determined by IUPAC method 2.150a	30	29.3	26.0	16.7	13.3	21.4
Solid fat content at 20°C determined by modified IUPAC method 2.150b	30	29.9	30.3	18.4	19.2	23.8
Texture at 20°C/ SAFA		1.00	1.01	0.61	0.64	0.79

Solid fat content at 20°C determined by IUPAC method 2.150a	20	9.9	10.4	3.1	3.1	5.0
Solid fat content at 20°C determined by modified IUPAC method 2.150b	20	10.8	12.0	3.5	6.9	8.0
Texture at 20°C/ SAFA		0.54	0.60	0.18	0.35	0.40

CLAIMS

1. A texture providing fat composition comprising
 - at least 25 % Sat(C12-C24)2O-triglycerides by weight of said texture
 - 5 providing fat composition, and
 - at least 3.0 % OSatO-triglycerides by weight of said texture providing fat composition,wherein said texture providing fat composition has a weight-ratio between
 - OSatO-triglycerides and
 - 10 - the sum of SatOO-triglycerides and OSatO-triglycerideswhich is at least 0.30,
wherein Sat is a saturated fatty acid, Sat(C12-C24) is a saturated fatty acid of chain length C12 to C24 and O is oleic acid.
- 15 2. The texture providing fat composition according to claim 1, comprising at least 35 % Sat(C12-C24)2O-triglycerides by weight of said texture providing fat composition, such as at least 45 % Sat(C12-C24)2O-triglycerides by weight of said texture providing fat composition.
- 20 3. The texture providing fat composition according to claim 1 or 2, comprising at least 25 % Sat(C14-C24)2O-triglycerides by weight of said texture providing fat composition, such as at least 35 % Sat(C14-C24)2O-triglycerides by weight of said texture providing fat composition, such as at least 45 % Sat(C14-C24)2O-triglycerides by weight of said texture providing fat composition.
- 25 4. The texture providing fat composition according to any of claims 1-3, comprising at least 25 % Sat(C16-C18)2O-triglycerides by weight of said texture providing fat composition, such as at least 35 % Sat(C16-C18)2O-triglycerides by weight of said texture providing fat composition, such as at least 45 % Sat(C16-C18)2O-triglycerides by weight of said texture providing fat composition.
- 30

5. The texture providing fat composition according to any of claims 1-4, wherein the amount of OSatO-triglycerides is at least 5.0 % by weight of said texture providing fat composition, such as at least 10.0 % by weight of said texture providing fat composition, such as at least 12.0 % by weight of said texture
5 providing fat composition, or such as at least 15.0 % by weight of said texture providing fat composition.

6. The texture providing fat composition according to any of claims 1-5, wherein the texture providing fat composition comprises OSat(12-24)O-triglycerides in an
10 amount of at least 3.0 % by weight of said texture providing fat composition, such as at least at least 5.0 % by weight of said texture providing fat composition, such as at least 10.0 % by weight of said texture providing fat composition, such as at least 12.0 % by weight of said texture providing fat composition, or such as at least 15.0 % by weight of said texture providing fat composition, wherein Sat(C12-C24)
15 is a saturated fatty acid of chain length C12 to C24.

7. The texture providing fat composition according to any of claims 1-6, wherein the texture providing fat composition comprises OSat(C14-C24)O-triglycerides in an amount of at least 3.0 % by weight of said texture providing fat composition,
20 such as at least 5.0 % by weight of said texture providing fat composition, such as at least 10.0 % by weight of said texture providing fat composition, such as at least 12.0 % by weight of said texture providing fat composition, or such as at least 15.0 % by weight of said texture providing fat composition, wherein Sat(C14-C24) is a saturated fatty acid of chain length C14 to C24.

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8. The texture providing fat composition according to any of claims 1-7, wherein the texture providing fat composition comprises OSat(C16-C18)O-triglycerides in an amount at least 3.0 % by weight of said texture providing fat composition, such as at least 5.0 % by weight of said texture providing fat composition, such as at least
30 10.0 % by weight of said texture providing fat composition, such as at least 12.0 % by weight of said texture providing fat composition, or such as at least 15.0 % by

weight of said texture providing fat composition, wherein Sat(C16-C18) is a saturated fatty acid of chain length C16 to C18.

9. The texture providing fat composition according to any of claims 1-8, wherein
5 the texture providing fat composition comprises OPO-triglycerides in an amount of at least 3.0 % by weight of said texture providing fat composition, such as at least 5.0 % by weight of said texture providing fat composition, such as at least 10.0 % by weight of said texture providing fat composition, or such as at least 15.0 % by weight of said texture providing fat composition, wherein P is palmitic acid.

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10. The texture providing fat composition according to any of claims 1-9, wherein
the texture providing fat composition comprises OStO-triglycerides in an amount
of at least 3.0 % by weight of said texture providing fat composition, such as at least
5.0 % by weight of said texture providing fat composition, such as at least 10.0 %
15 by weight of said texture providing fat composition, or such as at least 15.0 % by
weight of said texture providing fat composition, wherein St is stearic acid.

11. The texture providing fat composition according to any of claims 1-10, wherein
said weight-ratio between OSatO-triglycerides and the sum of SatOO and OSatO is
20 at least 0.35, such as at least 0.40, such as at least 0.50, such as at least 0.60, such
as at least 0.70, such as at least 0.80.

12. The texture providing fat composition according to any of claims 1-11, wherein
the texture providing fat composition has a weight-ratio between
25 - OSat(C12-C24)O-triglycerides and
- the sum of Sat(C12-C24)OO-triglycerides and OSat(C12-C24)O-
triglycerides

which is at least 0.30, such as at least 0.40, such as at least 0.50, such as at least
0.60, such as at least 0.70, such as at least 0.80,
30 wherein Sat(C12-C24) is a saturated fatty acid of chain length C12 to C24.

13. The texture providing fat composition according to any of claims 1-12, wherein the texture providing fat composition has a weight-ratio between
- OSat(C14-C24)O-triglycerides and
 - the sum of Sat(C14-C24)OO-triglycerides and OSat(C14-C24)O-triglycerides
- 5 which is at least 0.30, such as at least 0.40, such as at least 0.50, such as at least 0.60, such as at least 0.70, such as at least 0.80, wherein Sat(C14-C24) is a saturated fatty acid of chain length C14 to C24.
- 10 14. The texture providing fat composition according to any of claims 1-13, wherein the texture providing fat composition has a weight-ratio between
- OSat(C16-C18)O-triglycerides and
 - the sum of Sat(C16-C18)OO-triglycerides and OSat(C16-C18)O-triglycerides
- 15 which is at least 0.30, such as at least 0.40, such as at least 0.50, such as at least 0.60, such as at least 0.70, such as at least 0.80, wherein Sat(C16-C18) is a saturated fatty acid of chain length C16 to C18.
- 15 15. The texture providing fat composition according to any of claims 1-14, wherein the texture providing fat composition has a weight-ratio between
- OPO-triglycerides and
 - the sum of POO-triglycerides and OPO-triglycerides
- which is at least 0.30, such as at least 0.40, such as at least 0.50, such as at least 0.60, such as at least 0.70, such as at least 0.80.
- 25 16. The texture providing fat composition according to any of claims 1-15, wherein the texture providing fat composition has a weight-ratio between
- OStO-triglycerides and
 - the sum of StOO-triglycerides and OStO-triglycerides
- 30 which is at least 0.30, such as at least 0.40, such as at least 0.50, such as at least 0.60, such as at least 0.70, such as at least 0.80.

17. The texture providing fat composition according to any of claims 1-16, wherein the texture providing fat composition comprises Sat3-triglycerides in an amount of between 1 to 15 % by weight of said texture providing fat composition, such as
5 between 1 to 10 % by weight of said texture providing fat composition, such as between 1 to 5 % by weight of said texture providing fat composition.

18. The texture providing fat composition according to any of claims 1-17, wherein the texture providing fat composition has a weight-ratio between
10 - the solid fat content at 20 degrees Celsius, as determined by modified IUPAC method 2.150b, and
- the amount of saturated fatty acids
which is at least 0.85, such as at least 0.90, such as at least 1.00, such as at least 1.10, such as at least 1.20, such as at least 1.25.

15 19. The texture providing fat composition according to any of claims 1-18, wherein the texture providing fat composition has a Crystallization speed, which is at least 0.85, such as at least 0.90, such as at least 0.92, such as at least 0.94, such as at least 0.96,

20 wherein the crystallization speed is defined as a ratio between
- the solid fat content determined by IUPAC method 2.150a at 20 degrees Celsius and
- the solid fat content determined by IUPAC method 2.150b at 20 degrees Celsius.

25 20. The texture providing fat composition according to any of claims 1-19, wherein the texture providing fat composition has a weight-ratio between
- the sum of Sat3-triglycerides and Sat2O-triglycerides and
- the solid fat content at 20 degrees Celsius, as determined by the
30 modified IUPAC method 2.150b,
which is less than 1.00, such as less than 0.95.

21. The texture providing fat composition according to any of claims 1-20, wherein the amount of saturated fatty acids is at least 25% by weight of said texture providing fat composition, such as at least 30% by weight of said texture providing fat composition, such as at least 35 % by weight of said texture providing fat composition, such as at least 40 % by weight of said texture providing fat composition.
22. The texture providing fat composition according to any of the claims 1-20, wherein the amount of saturated fatty acids is less than 65% by weight of said texture providing fat composition, such as less than 60% by weight of said texture providing fat composition, such as less than 55% by weight of said texture providing fat composition, such as less than 50% by weight of said texture providing fat composition.
23. The texture providing fat composition according to any of claims 1-22, wherein the solid fat content at 20 degrees Celsius is at least 25 %, such as at least 30%, such as at least 35 %, such as at least 40 %, such as at least 45 %, such as at least 50 %, such as at least 55 %, such as at least 60 %, wherein the solid fat content is determined by the modified IUPAC method 2.150b.
24. The texture providing fat composition according to any of claims 1-23, wherein said texture providing fat composition comprises OSatO-triglycerides, obtained by interesterification.
25. The texture providing fat composition according to any of claims 1-24, wherein the combined amount of U3-triglycerides and U2Sat-triglycerides is more than 31 % by weight of said texture providing fat composition, such as more than 32 % by weight of said texture providing fat composition, such as more than 35 % by weight

of said texture providing fat composition, or such as between 35 to 44 % by weight of said texture providing fat composition.

26. The texture providing fat composition according to any of claims 1-25, wherein
5 the amount of U3-triglycerides is at least 4 % by weight of said texture providing fat composition, such as at least 6 % by weight of said texture providing fat composition, such as at least 7 % by weight of said texture providing fat composition, or such as between 5 - 30 % by weight of said texture providing fat composition.

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27. The texture providing fat composition according to any of claims 1-26, wherein said texture providing fat composition comprises vegetable fat in an amount of 0 - 60% by weight of said texture providing fat composition, such as 5 - 50% by weight of said texture providing fat composition.

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28. The texture providing fat composition according to claim 27, wherein said vegetable fat comprises fat obtained from rapeseed, corn, soy, sunflower seed, cotton seed, maize, olive, hazelnut, groundnut, palm, shea, cocoa, illipe, kokum, sal, allanblackia, mowrah, mango, or any fraction or any combination thereof.

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29. The texture providing fat composition according to any of claims 1-28, wherein said texture providing fat composition further comprises 0 – 40% milk fat by weight of said texture providing fat composition, such as 2 - 30% by weight of said texture providing fat composition, such as 10 – 25 % by weight of said texture providing
25 fat composition.

30. The texture providing fat composition according to claim 29, wherein said milk fat comprises milk fat obtained from animal origin, such as milk fat obtained from cow.

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31. The texture providing fat composition according to any of claims 1-30, wherein the amount of lauric acid is 10% or less by weight of said texture providing fat composition.
- 5 32. The texture providing fat composition according to any of claims 1-31, wherein the amount of trans fatty acid is 10% or less by weight of said texture providing fat composition.
33. An edible product comprising the texture providing fat composition according to any of claims 1-32 in an amount of 15 – 99.9 % by weight of said edible product.
- 10 34. The edible product according to claim 33, wherein said edible product further comprises
- filler in an amount of 0.1 – 85 % by weight of said edible product and
 - 15 - water in an amount of 0 – 20 % by weight of said edible product
35. A food product, such as a dairy food product, a confectionary food product, a bakery food product or a culinary food product, comprising the texture providing fat composition according to any of claims 1-32 or the edible product according to
- 20 claim 33 or 34.
36. A method for producing said texture providing fat composition, said method comprising the steps of
- providing a vegetable fat
 - 25 - providing a milk fat,
 - providing an interesterified fat comprising at least 3.0 % OSatO-triglycerides by weight of said interesterified fat,
 - mixing said interesterified fat with said vegetable fat and said milk fat to obtain said texture providing fat composition, wherein said texture providing fat
 - 30 composition comprises

- at least 25 % Sat(C12-C24)2O-triglycerides by weight of said texture providing fat composition, and
 - at least 3.0 % OSatO-triglycerides by weight of said texture providing fat composition,
- 5 wherein said texture providing fat composition has a weight-ratio between
- OSatO-triglycerides and
 - the sum of SatOO-triglycerides and OSatO-triglycerides
- which is at least 0.30,
- wherein Sat is a saturated fatty acid, Sat(C12-C24) is a saturated fatty acid of
- 10 chain length C12 to C24 and O is oleic acid.
37. Use of the texture providing fat composition according to any of claims 1-32 or produced by claim 36 for the production of an edible product or a food product.
- 15 38. Use of the edible product according to claim 33 or 34 for the production of a food product.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE2017/051299

A. CLASSIFICATION OF SUBJECT MATTER

IPC: see extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: A23G, C11C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, PAJ, WPI data, CHEM ABS Data, FSTA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2014023444 A (NISSHIN OILLIO GROUP LTD), 6 February 2014 (2014-02-06); (abstract) Retrieved from: WPI database; Original document: JP2014023444; abstract;; Paragraph [0083] --	1-38
A	US 6277433 B1 (LANTZ INGO ET AL), 21 August 2001 (2001-08-21); claim 1 --	1-38
A	JP 2002065162 A (ASAHI DENKA KOGYO KK), 5 March 2002 (2002-03-05); (abstract) Retrieved from: WPI database; Original document: JP2002065162; abstract --	1-38



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

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INTERNATIONAL SEARCH REPORT

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2013223464 A (ADEKA CORP), 31 October 2013 (2013-10-31); (abstract) Retrieved from: WPI database; Original document: JP2016140313; abstract --	1-38
A	JP 2016140313 A (FUJI OIL CO LTD), 8 August 2016 (2016-08-08); (abstract) Retrieved from: WPI database; Original document: JP2016140313; abstract --	1-38
A	WO 2016125791 A1 (FUJI OIL HOLDINGS INC), 11 August 2016 (2016-08-11); (abstract) Retrieved from: WPI database; Original document: WO2016125791; abstract -- -----	1-38

Continuation of: second sheet

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A23G 1/36 (2006.01)

C11C 3/00 (2006.01)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/SE2017/051299

JP	2014023444 A	06/02/2014	JP	5885609 B2	15/03/2016
US	6277433 B1	21/08/2001	NONE		
JP	2002065162 A	05/03/2002	JP	3464646 B2	10/11/2003
JP	2013223464 A	31/10/2013	JP	5917261 B2	11/05/2016
JP	2016140313 A	08/08/2016	NONE		
WO	2016125791 A1	11/08/2016	NONE		