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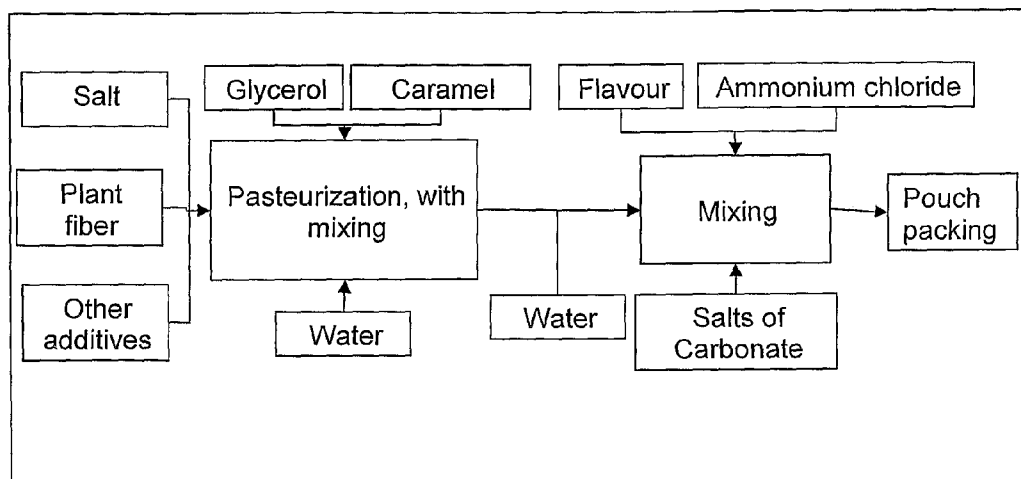
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(54) Title: A MOIST SNUFF NON-TOBACCO COMPOSITION AND A METHOD FOR PRODUCTION THEREOF.



(57) Abstract: The present invention provides according to a first aspect a method for the production of a moist snuff non-tobacco composition. According to a second aspect of the invention a composition obtainable from said method is provided.

Diphenylazetidinone Derivates Possessing Cholesterol Absorption Inhibitory Activity

This invention concerns the technical field of non-tobacco products, in particular a method for the production of a moist snuff non-tobacco composition and a
5 composition obtainable from said method.

Background

Tobacco can be used and/or consumed in a variety of products and methods. Most commonly, tobacco is smoked, chewed, or used as snuff.

10 Smokeless tobacco products are tobacco-based products that are held in the mouth for an extended period of time and either chewed or used as snuff ("dipped"). Chewing tobacco, which is popularly called chew or chaw, is available as coherent plugs. On the other hand, snuff is not chewed. Snuff is available in two forms- dry for sniffing, and moist (or wet), for placing between the lip and gum.

15 Unfortunately, the nicotine in tobacco is a substance to which people may become addicted. Thus, increasing attention by the medical profession and the public has been directed against chewing tobacco and moist snuff.

In light of the foregoing, there is a need for non-tobacco products intended for personal use as chew or snuff. Such smokeless non-tobacco products
20 may be offered as a healthier alternative to smokeless tobacco products, especially for those who currently use smokeless tobacco products. Smokeless non-tobacco products could be developed without addictive nicotine.

Through US 2004/0123873 there is disclosed a non-tobacco moist snuff composition wherein corn silk is used for producing a non-tobacco moist snuff
25 composition.

There are also dry non-tobacco snuff products for oral use currently on the Swedish market, Choice®, XQs™ and RealTaste. However they are not moist and will not resemble the feeling when using moist tobacco snuff products. Accordingly they all lack similarity with moist tobacco snuff products, e.g. snus, and they have not the
30 taste and characteristics similar to moist tobacco snuff products, e.g. snus. Further several of the non-tobacco products are based on herbs. Herbs often have infections of bacteria and mould obtained from the fields.

Thus it is desirable to be able to provide a method for obtaining a moist non-tobacco product which resembles moist snuff, e.g. snus, so that a consumer feels
35 comfortable in his/her mouth when using a moist non-tobacco product in comparison with when using moist snuff, e.g. snus. Accordingly it would be desirable to have a moist non-tobacco product with a moisture level which is relatively high. It is also

desirable to provide a moist non-tobacco product with low bacteria content and which is thus safer for the consumer.

Summary of the invention

5 The present invention solves one or more of the above problems by providing according to a first aspect a method for manufacturing a non-tobacco moist snuff composition for oral use, comprising one or more plant fibers, comprising the following steps:

10 a) providing of one or more plant fibers, preferably in flour form, optionally preceded by grinding or cutting and/or sieving of raw material for providing said one or more plant fibers;

 b) processing of one or more plant fibers provided in step a), preceded by mixing if more than one type of fiber is used or if fibers with different size distribution are used; wherein step b) comprises the following steps:

15 i) adding water (preferably giving a water content of 30-50% per weight or more, most preferred 35-41 % for good performance on pouch packing), one or more humectants, and NaCl to the plant fibers under stirring to form a mixture;

20 ii) heating and keeping the mixture heated, thus achieving a pasteurisation or a "sweating" of the mixture, preferably in line with the **GothiaTek®** standard, which is a Swedish Match quality standard for snus,

 iii) cooling the moist snuff mixture; and

25 iv) optionally adding other ingredients such as one or more other salts, humectants, dyes, flavours and flavour additives, such as liquorice and ammonium chloride,

 c) and optionally packing, either in pouches, which is preferred, or as is in cans.

According to a second aspect of the invention a moist snuff composition obtainable by a method according to the first aspect is provided.

Detailed description of the invention

30 It is intended throughout the present description that the expression "plant fibers" embraces any plant fiber that may be useful when manufacturing a moist non-tobacco snuff.

35 When discussing the expression "water content" throughout the present description it is intended to embrace a water content measured by using Karl Fischer

titration which is a known method for the person skilled in the art for measuring water (moisture) content.

When making snus, i.e. a tobacco-containing moist snuff, according to the **GothiaTek®** standard the main ingredients except for tobacco are normally water, salt (table salt; NaCl) and sodium carbonate. Flavours and humectants may also be used. Salt is added mainly for its effect on taste but it also has a preservative action which contributes to improved shelf life of the products. Sodium carbonate is used to give the products their characteristic flavour profile but also brings the pH value to the slightly alkaline side. Sodium carbonate will convert to baking soda immediately after it is added. Flavours in general are natural or nature identical compounds that comply with food regulations. Flavours are usually dissolved in alcohol when added. Most of the alcohol evaporates during production. Only trace quantities remain. Humectants may also be added to protect the products from drying out. Two types may be used: glycerol and propylene glycol. Both of them also have a preservative effect since they lower the water activity of the product, thus preventing micro organisms from growing.

The moist tobacco-containing snuff is then manufactured in two major steps, a) grinding (cutting) and b) processing (see Figure 1).

a) Grinding, sieving

The tobacco is broken up, dried and fed into a grinder. The ground tobacco is sieved into three particle size fractions, coarse, medium and fine. Pre-set quantities of the three fractions are fed into a mixer silo where the tobacco flour is mixed. After blending, the tobacco flour is fed into a storage silo, from which flour is automatically taken to the processing operation. Each type of tobacco mixture is kept in a separate silo.

b) Processing

Manufacturing of Swedish moist snuff is preferably done in a batch operation. The whole process may be computer controlled and can be run day and night, all week around. To start the process, tobacco flour is automatically weighed and fed into the process blender. Water and salt is added to the batch under stirring. The batch is then heated and kept heated up for a specified time, which varies with brands. Temperature and stirring is preferably controlled by a process computer program. This part of the process is traditionally named "sweating" but is more close to a pasteurisation process. After pasteurisation the moist snuff batch is cooled down and the rest of the ingredients are added. The power of the mixing and the time period for the mixing may be crucial for obtaining an optimal product.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein water is added in step i) giving a final moisture content of approximately from 30 to 50% per weight or more, preferably approximately from 35 to 41 %, as determined by Karl Fischer titration, to obtain good
5 performance for packing the product in pouches.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein the humectant is glycerol or propylene glycol or a combination thereof, preferably glycerol.

According to a preferred embodiment of the first aspect of the present invention
10 there is provided a method wherein the NaCl is added in an amount from approximately 6 to 16 % (calculated on dry basis according to Formula I as set out below), preferably 8 to 10 %.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein glycerol is added in an amount from
15 approximately 2 to 15 % (based on Formula II as set out below), preferably from approximately 8 to 12 %.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein the flavours are selected from the group containing fruits, berries, flowers, herbs, oil of fruits and edible plants or a
20 combination thereof.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein the other salt is a carbonate or ammonium chloride.

According to a preferred embodiment of the first aspect of the present invention
25 there is provided a method wherein the dye is caramel (E150) or vegetable carbon (E153).

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein the additive is selected from the group containing extracts from fruits, leaves, berries, vegetables, barks and herbs or a combination
30 thereof.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein the plant fibers are selected from the group containing maize fibers, oat fibers, cocoa fibers, tomato fibers, barley fibers, molasses fibers, rye fibers, sugar beet fibers, buck wheat fibers, potato fibers, cellulose fibers,
35 apple fibers or a combination thereof, preferably maize fibers are used.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein sweetening agents, flavouring agents, colour agents and/or dyes additionally are added in step a).

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein NaCl is added from approximately 6 to 16 %, preferably 8 to 10%, and glycerol is added from approximately 2 to 15 %, preferably approximately 8 to 12 % (the figures are all calculated according to formula I and II, respectively).

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein the heat treatment in step ii) is applied during approximately 1 to 30 hours, preferably approximately 10 h, with mixing each quarter of an hour.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein the plant fibers is maize fibers and its weight fraction distribution is as follows:

8-20% < 100μm,
100μm<22-34% <160μm,
160μm<28-45%<250μm, and
16-37% of the fiber blend>250μm

20 According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein an ingredient selected from the group consisting of: caffeine, red clover, Echinacea, Green tea extract, Maca, Mate, Matcha, Roiboos, Ginger, Rose hips, white clover, sweet clover, ginseng, guarana, arctic root, rosmmary, buckthorn, bilberry, cranberry, lingonberry, anise, clove, gum tragacanth, gum arabic, gum acacia, gum
25 karaya, locust bean gum, xanthan gum, or combinations thereof is added.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein Guarana, caffeine, ginseng, matcha, maca, mate and green tea extract is added. Guarana may be added to about 16%, or down to about 4%, depending on desired caffeine level (calculations according to formula I and II as set out below). This interval is desirable from a processing point of view. Furthermore, Guarana may be used both for its caffeine content as well as content of polyphenols, or more specific tannins. This has a health benefit as well as taste enhancement. For an application where health and taste are in focus, the addition up against 16% is preferred. Caffeine may be added to about 16% down to 1% depending on desired caffeine level. Caffeine in this interval is desirable from a processing point of view. The effect of caffeine can be regarded as well known.

Ginseng may be added with 2%, 5%, 14% or 27% by weight ginsenosides. Depending on ginseng quality the additions of ginseng differ considerably. All the stated ginsenoside concentrations can be used. Starting from the lowest concentration (2% ginsenosides) from about 3 to about 9% is the desired range (calculated in accordance with formula I and II as set out below). For higher concentration of ginsenosides, the amount of ginseng may be reduced. The addition of highly concentrated ginseng (27%) may be in the range of from about 0.2 to about 0.8% (calculated in accordance with formula I and II as set out below). No matter the concentration of ginsenosides an addition of ginseng up to about 20% by total weight works from a processing point of view. Effect of ginseng can be regarded as well known, and dose depends on type of application and intended use. Green tea extract in powder or ethanol can be added in levels of from about 0.5 to about 2.5 %, to achieve both taste and preservation effect (calculations according to formula I and II below). The tea-type plants matcha, rooibos, maca, mate can be used the same way as green tea extract, with the same level of addition to the product.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein caffeine, guarana and ginseng are added.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein Green tea, Maca, Mate and Guarana are added.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein Guarana, Ginseng, Mate, Maca and Green tea extract are added.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein Matcha and/or Green tea extract are added.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein Caffeine, Guarana, Ginseng, Maca and Mate are added.

According to a preferred embodiment of the first aspect of the present invention there is provided a method wherein Roiboos is added.

According to a preferred embodiment of the second aspect of the present invention there is provided a pouch containing a moist snuff composition according to the second aspect of the invention.

The finalized non-tobacco moist snuff composition may be packaged in any suitable container, such as in a tin or can (optionally provided with a lid), in a plurality of individual mesh pouches, or any other package known in the art.

Preferred features of each aspect of the invention are as for each of the other aspects mutatis mutandis. The prior art documents mentioned herein are incorporated to the fullest extent permitted by law. The invention is further described in the following

examples in conjunction with the appended figures, which do not limit the scope of the invention in any way. Embodiments of the present invention are described in more detail with the aid of examples of embodiments and figures, the only purpose of which is to illustrate the invention and are in no way intended to limit its extent.

5

Short description of the figures

Fig. 1 shows the manufacturing process of moist snuff in accordance with the GothiaTek® standard, when making a tobacco containing product.

Fig. 2 shows a flow sheet for the manufacturing of plant fiber-based snuff portions according to the first aspect of the present invention. Flavour additives as e.g. liquorice or ammonium chloride may differ from product to product, but they are desirable when aiming for a product which resembles moist tobacco-containing snuff.

Examples

15

Example 1

Moist snuff in accordance with the second aspect of the invention was manufactured in accordance with the **GothiaTek®** standard, here adapted for a non-tobacco containing product as set out above, and said snuff was filled into pouches. The fibers that were used were:

Buckwheat fibers (SOFABRAN F 170 (buckwheat))

Maize fibers (SOFABRAN F 184-80 (maize))

Apple fibers (Vitacel® Bio- Apple Fiber AF 12).

The buckwheat and maize fibers were obtained from AB R. Lundberg, while the Apple fibers were obtained from LCH Kemiflor AB.

The buckwheat fibers and the maize fibers were finely ground (as set out below).

30

The proportions were

Buckwheat fibers	60 %	(approx. 90 % of the fibers with a size <250 µm)
Maize fibers	20 %	(approx. 90 % of the fibers with a size <250 µm; "fine maize")
Apple fibers	20 %	(approx. 60 % of the fibers with a size <315 µm) (approx. 20 % of the fibers with size <100 µm)

35

The fibers were pasteurized in a heat process in accordance with the **GothiaTek®** standard (which normally is used when producing moist tobacco-containing snuff). By using this method the product will get a suitable consistency for packaging into pouches. The pasteurization process took place during 1 -30 hours, wherein also mixing and steam injection was performed. During the pasteurization process fibers were added together with NaCl (6-16%, preferably 8-10 %, calculated according to formula I), caramel and glycerol (2-15%, preferably 8-12 %, calculated according to formula II), depending on moisture content. Glycerol is important for the consistency of the product. NaCl is important for the product safety and the taste. Preferably the glycerol is added before the heat treatment. The blending (mixing) is also very important for the final consistency. Preferably each quarter of an hour, the mix is fully blended by using a mixing arrangement in the blender. After the pasteurization process, flavours were added together with liquorice and ammonium chloride.

The heat treated and flavoured material was then packed in pouches (or as is in cans as set out in the examples below). The manufacturing process is further illuminated in Fig. 2.

Formulas for calculating different levels independent of the moisture content of the snuff

Formula (I) for calculating the salt addition:

$$\text{salt level} = \frac{\text{Amount of Sodium Chloride [kg]}}{\text{Total dry weight [kg]}} \times 100 \quad [\%]^1 \text{ See note below}$$

Formula (II) for calculating the glycerol level in the same way as above:

$$\text{glycerol level} = \frac{\text{Amount of glycerol [kg]}}{\text{Total dry weight [kg]}} \times 100 \quad [\%]^1 \text{ See note below}$$

¹ Total dry weight should be calculated in relation to water content measurement by Karl Fischer analysis

Example 2

Moist snuff in accordance with the second aspect of the invention was
5 manufactured in accordance with the **GothiaTek®** standard as set out above, and said
snuff was not filled into pouches. The fibers that were used in this example were:

80 % Buckwheat fibers (SOFABRAN F 170 (buckwheat))

20 % Maize fibers (fine maize), (SOFABRAN F 184-80 (maize))

NaCl was added to 6-16%, preferably 8-10 %

10 Glycerol was added to 2-15%, preferably 8-12 %.

The calculations were in accordance with the above mentioned formulas (I) and (II).

The buckwheat and maize fibers were obtained from AB R. Lundberg

15 *Example 3*

Moist snuff in accordance with the second aspect of the invention was
manufactured in accordance with the **GothiaTek®** standard as set out above, and said
snuff was not filled into pouches. The fibers that were used were

20

Buckwheat fibers (SOFABRAN F 170 (buckwheat))

Maize fibers (SOFABRAN F 184-80 (maize)).

Oat fibers (Vitacel 401)

NaCl was added to 6-16%, preferably 8 10 %

25 Glycerol was added to 2-15%, preferably 8-12 %.

The calculations were in accordance with the above mentioned formulas (I) and (II).

The buckwheat and maize fibers were obtained from AB R. Lundberg. The oat fibers
were obtained from LCH Kemiflor AB.

30

The buckwheat fibers and the maize fibers were finely ground (as set out below).

The proportions were

35 Buckwheat fibers 60 % (approx. 90 % of the fibers with a size <250
µm)

Maize fibers 20 % (approx. 90 % of the fibers with a size <250
µm; "fine maize")

Oat fibers 20 % (approx. 60 % of the fibers with a size <315
μm)

5 The three examples 1 to 3 gave as results thereof good pinches of non-tobacco
containing snuff with a good taste. The caramel which may be used in all three
examples is Sockerkulör N, provider AB Fermia.

Example 4 (a preferred embodiment of the second aspect)

10

Moist snuff in accordance with the second aspect of the invention was
manufactured in accordance with the **GothiaTek®** standard as set out above, and said
snuff was not filled into pouches. The fibers used were solely maize fibers (100 %).

15

Coarse maize (SOFABRAN F 184-400 (maize)) and

Fine maize, (SOFABRAN F 184-80 (maize))

NaCl was added to approximately 6-16 %, preferably 8-10 %

Glycerol was added to 2-15 %, preferably 8-12 %.

20

The calculations for NaCl and Glycerol were in accordance with the above mentioned
formulas (I) and (II). The maize fibers were obtained from AB R. Lundbergs.

Here short time heat treatment was applied during 10.5 h with mixing each quarter of an
hour. By using this process a well tasting product was achieved.

25

The fraction distribution for the maize fibers was as follows:

8-20% < 100μm,

100μm<22-34% <160μm,

160μm<28-45%<250μm, and

30

16-37% of the fiber blend>250μm

Example 5

Moist snuff in accordance with the first aspect of the invention was manufactured in accordance with the **GothiaTek®** standard as set out above, and said snuff was not filled into pouches. The fiber used was

Oat fiber (Vitacel 401, provided by LCH Kemiflor AB)

NaCl added to 6-16%, preferably 8-10%

Glycerol was added to 2-15% preferably 8-12%

Calculations were in accordance with above mentioned formulas (I) and (II). Approximately 60% of the fiber material were of size <315µm.

Example 6

Moist snuff in accordance with the first aspect of the invention was manufactured in accordance with the GothiaTek® standard as set out above, and said snuff was not filled into pouches. The fibres used were

Oat fiber (Vitacel 401, provided by LCH Kemiflor AB) or

Maize fiber (F184-400 and F184-80)

NaCl added to 6-16%, preferably 8-10%

Glycerol was added to 2-15%, preferably 8-12%

Water to achieve water content of approximately 30-40%

To this mixture Guarana, caffeine, ginseng, matcha, maca, mate, green tea extract were added to the above formulation in proportions mentioned below.

Guarana may be added (18-22% caffeine, maximum tannin content 15%, provider AB R. Lundberg) to about 16%, or down to about 4%, depending on desired caffeine level. This interval is from a processing point of view desirable. Furthermore, Guarana is used both for its caffeine content as well as content of polyphenols, or more specific tannins. This has a health benefit as well as taste enhancement. For an application where health and taste are in focus, the addition up against about 16% is preferred.

Caffeine may be added (appr. 99.5% pure, natural or synthetic, provider Bröste AB) at 13% down to 1% depending on desired caffeine level. Caffeine in this interval is from a processing point of view desirable. The effect of caffeine can be regarded as well known.

Ginseng (2%, 5%, 14% or 27% ginsenosides calculated as assay (HPLC) on individual ginsenosides Rg1, Re, Rf, Rb1, Re, Rb2, and Rd-content, provider Univar Fiskefood AB). Depending on ginseng quality the additions of ginseng differ considerably. All the stated ginsenoside concentrations may be used without any problems. Starting from the lowest concentration (2% ginsenosides) from 3 to 9% is the desired range. For higher concentration of ginsenosides, the amount of ginseng is preferably reduced. The addition of highly concentrated ginseng (27%) is in the range of from 0.2 to 0.8%. No matter the concentration of ginsenosides an addition of ginseng up to 20% works well from a processing point of view. Effect of ginseng can be regarded as well known, and dose depends on type of application and intended use.

Green tea extract in powder or ethanol solution (both with 0.2% caffeine, Catechin 2.5 - 5%, Epigallocatechin 1 - 2%, provider AB R.Lundberg) can be added in levels of 0.5 - 2.5%, to achieve both taste and preservation effect.

The plants matcha, rooibos, maça, mate can be used the same way as green tea extract, with the same level of addition to the product.

All of these additives can be added simultaneously to the product, to achieve a multifunctional product. It is however, preferred to use only caffeine, guarana and ginseng in the same formulation. Another preferred way of formulating the product is to use Green tea extract, Maca, Mate and Guarana. Yet another preferred formulation is to use Guarana, Ginseng, Mate, Maca and Green tea extract. Roiboos can be added to all the mentioned formulations to achieve colour and taste enhancement. Matcha and Green tea extract can be used to accomplish a formulation more focused on green tea profile in taste and preservation effect. Finally a formulation with Caffeine, Guarana, Ginseng, Maca and Mate can successfully be used for an "energetic" formulation.

Calculations were in accordance with above mentioned formulas (I) and (II). Approximately 60% of the fiber material were of size <315 µm.

Comments of the above examples

It is also possible to use the following fibers in order to manufacture non-tobacco containing moist snuff:

- Oat fibers (e.g. VITACEL 401, provider LCH Kemiflor AB)
- Apple fibers (e.g. VITACEL Bio-Apple Fiber AF 12, provider LCH Kemiflor AB)
- Sugarbeet fibers (e.g. Fibrex ®, provider Danisco Sugar AB)
- Potato fibers (e.g. Vitacel KF 200, provider LCH Kemiflor AB)
- Coarse maize (e.g. SOFABRAN F 184-400 (Maize), provider AB R. Lundbergs)
- Fine maize, (e.g. SOFABRAN F 184-80 (Maize), provider AB R. Lundbergs)
- Buckwheat fibers (e.g. SOFABRAN F 170 (buckwheat), provider AB R. Lundbergs)
- Cellulose fibers (e.g. HEWETEN (micro-crystalline cellulose) , provider LCH Kemiflor AB)
- Powdered cellulose (e.g. Vitacel, provider LCH Kemiflor AB)

When it comes to the additions, glycerol may be varied between approximately 2 –15 % according to formula I and II (with preferred results at 8-12 %), NaCl may be varied between 6 and 16 % according to formula I and II (with good results in the full interval, preferably 8-10 % is used)

Flavour additives that further may be added are liquorice and ammonium chloride.

Various embodiments of the present invention have been described above but a person skilled in the art realizes further minor alterations, which would fall into the scope of the present invention. The breadth and scope of the present invention should not be limited by any of the above-described exemplary embodiments, but should be defined only in accordance with the following claims and their equivalents. For example, any of the above-noted methods can be combined with other known methods. Other aspects, advantages and modifications within the scope of the invention will be apparent to those skilled in the art to which the invention pertains.

List of documents appearing in the description

US 2004/0123873

Claims

- 5 1. A method for manufacturing a non-tobacco moist snuff composition for oral use, comprising one or more plant fibers, comprising the following steps:
- a) providing of one or more plant fibers, preferably in flour form, optionally preceded by grinding or cutting and/or sieving of raw material for providing said one or more plant fibers;
- 10 b) processing of one or more plant fibers provided in step a), preceded by mixing if more than one type of fiber is used or if fibers with different size distribution are used; wherein step b) comprises the following steps:
- i) adding water, one or more humectants, and NaCl to the plant fibers under stirring to form a mixture;
- 15 ii) heating and keeping the mixture heated, thus achieving a pasteurisation or a "sweating" of the mixture,
- iii) cooling the moist snuff mixture; and
- iv) optionally adding other ingredients such as one or more other salts, humectants, dyes, flavours and flavour additives, such as liquorice and ammonium chloride,
- 20 c) and optionally packing, either in pouches, which is preferred, or as is in cans.
2. A method according to claim 1 wherein water is added in step i) giving a final water content of from 30 to 50% per weight or more, preferably from 35 to 41 %.
- 25 3. A method according to claim 1 wherein the humectant is glycerol or propylene glycol or a combination thereof, preferably glycerol.
- 30 4. A method according to claim 1 wherein the NaCl is added in an amount from 6 to 16 %, preferably 8-10 %.
5. A method according to claim 3 wherein glycerol is added in an amount from 2 to 15 %, preferably from 8-12 %.
- 35

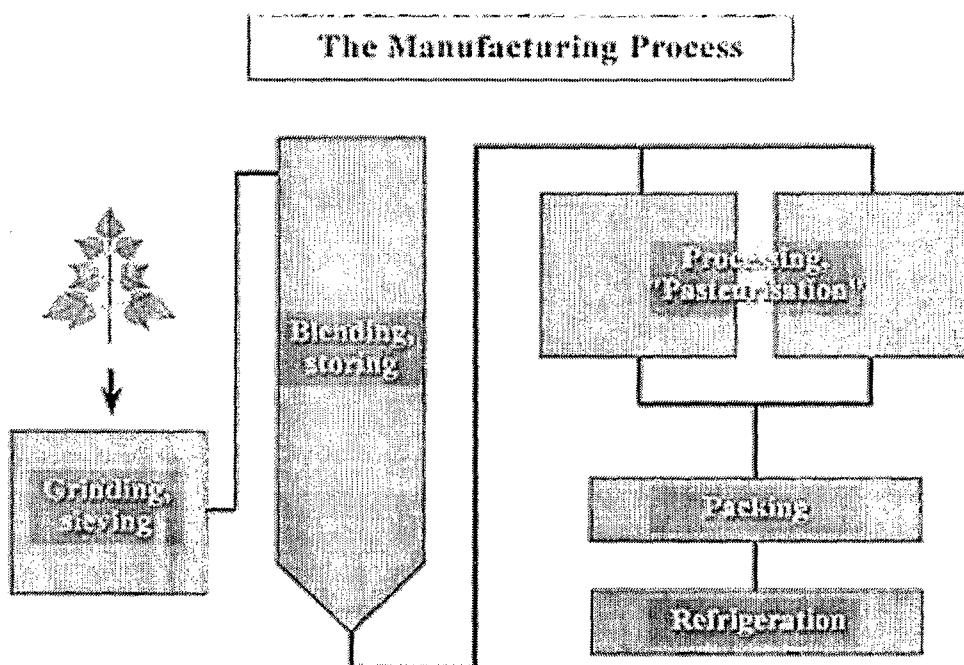
6. A method according to claim 1 wherein the flavour is selected from the group containing fruits, berries, flowers, herbs, oil of fruits and edible plants or a combination thereof.
- 5 7. A method according to claim 1 wherein the other salt is a carbonate or ammonium chloride.
8. A method according to claim 1 wherein the dye is caramel or vegetable carbon.
- 10 9. A method according to claim 1 wherein the additive is selected from the group containing extracts from fruits, leaves, berries, vegetables, barks and herbs or a combination thereof.
- 15 10. A method according to any of the preceding claims wherein the plant fibers are selected from the group containing maize fibers, oat fibers, tomato fibers, barley fibers, molasses fibers, rye fibers, sugar beet fibers, buck wheat fibers, potato fibers, cellulose fibers, apple fibers, cocoa fibers, or a combination thereof; preferably maize fibers or oat fibers are used.
- 20 11. A method according to claim 1 wherein sweetening agents, flavouring agents, colour agents and/or dyes additionally are added in step a).
- 25 12. A method according to claim 1 wherein NaCl is added from 6 to 16 %, preferably 8-10 %, and glycerol is added from 2-15 %, preferably approximately 8-12 %.
- 30 13. A method according to claim 12 wherein the heat treatment in step ii) is applied during from 1 to 30 hours, preferably approximately 10 h, with mixing each quarter of an hour.
- 35 14. A method according to claim 13 wherein the plant fibers is maize fibers and its weight fraction distribution is as follows:
- 8-20% < 100µm,
100µm < 22-34% < 160µm,
160µm < 28-45% < 250µm, and
16-37% of the fiber blend > 250µm

15. A method according to claim 1 wherein an ingredient selected from the group consisting of: caffeine, red clover, Echinacea, Green tea extract, Maca, Mate, Matcha, Roiboos, ginger, rose hips, white clover, sweet clover , ginseng, guarana, arctic root, rosmmary, buckthorn, bilberry, cranberry, lingon berry, anise, clove, gum tragacanth, gum arabic, gum acacia, gum karaya, locust bean gum, xanthan gum, or combinations thereof is added.
16. A method according to claim 15 wherein Guarana, caffeine, ginseng, matcha, maca, mate, green tea extract are added.
17. A method according to claim 15 wherein caffeine, guarana and ginseng are added.
18. A method according to claim 15 wherein Green tea, Maca, Mate and Guarana are added.
19. A method according to claim 15 wherein Guarana, Ginseng, Mate, Maca and Green tea extract are added.
20. A method according to claim 15 wherein Matcha and/or Green tea extract are added.
21. A method according to claim 15 wherein Caffeine, Guarana, Ginseng, Maca and Mate are added.
22. A method according to any one of claims 16-21 wherein Roiboos is added.
23. A moist snuff composition obtainable by a method according to any one of claims 1 to 22.
24. A pouch containing a moist snuff composition according to claim 23.

Fig 1.

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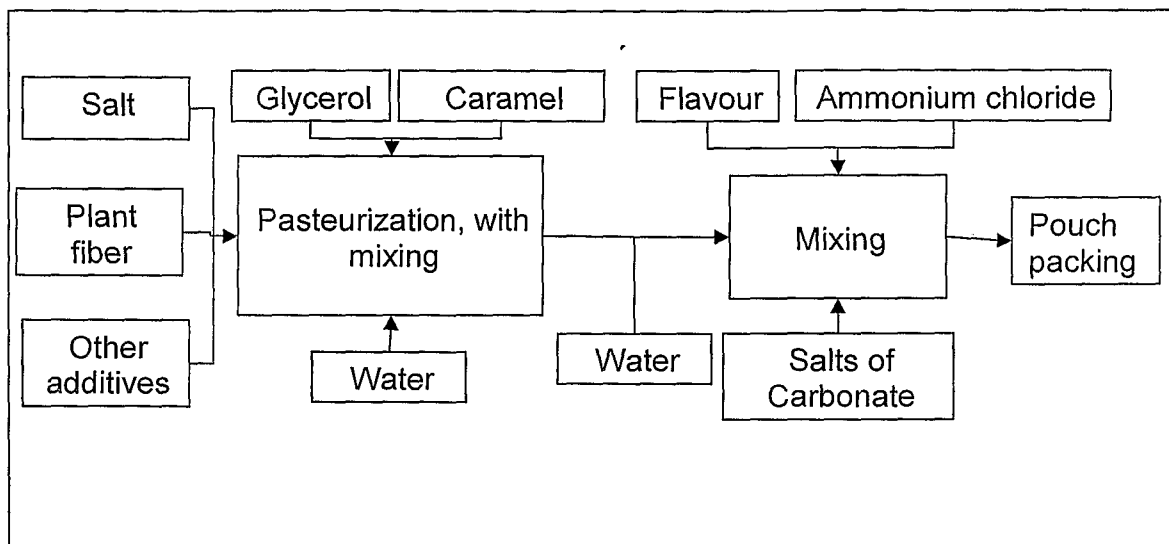
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The manufacturing process is in accordance with the **GothiaTek®** standard, used for manufacture of tobacco containing oral moist snuff (snus).

Fig 2.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE2007/000405

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: A24B

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, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 20020170567 A1 (JOHN RIZZOTTO ET AL), 21 November 2002 (21.11.2002), page 1, paragraph (0011)-(0012) --	1-24
A	US 4811746 A (LORI J. DAVIS), 14 March 1989 (14.03.1989), see example, column 3-4 --	1-24
A	US 4817640 A (JOHN K. SUMMERS), 4 April 1989 (04.04.1989), see example 2, column 7-8 -- -----	1-24



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

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Date of the actual completion of the international search

6 August 2007

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International patent classification (IPC)**A24B 15/18** (2006.01)**A24B 15/16** (2006.01)**Download your patent documents at www.prv.se**

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Cited literature, if any, will be enclosed in paper form.

INTERNATIONAL SEARCH REPORT

Information on patent family members

31/07/2007

International application No.

PCT/SE2007/000405

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