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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
Rad. 01-006094 - 00007-0000
Fee: 2007-03-22 1646.56 Dec. 2020 NUEVAREACIONES
Tra. 2 PATENTES
Evo: 1 REGISTRO
Am 483 MAPA SOPROCPRAI Folios: 1

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

E. S. D.

Referencia: Expediente No. 01.096.094
Solicitud de Patente de Invención titulada: "Producto edulcorante a partir de stevia y proceso de elaboración"

Solicitante: J.G.B. S.A.

SOLICITUD DE AGILIZACIÓN DEL TRÁMITE

ÁLVARO CORREA ORDÓÑEZ, mayor de edad y vecino de Bogotá D.C., identificado tal como aparece al pie de mi firma, en mi carácter de apoderado de la sociedad en referencia, solicito respetuosamente que se agilice el trámite para el expediente de la referencia.

Atentamente,



ÁLVARO CORREA ORDÓÑEZ
C.C.No.79.143.366 de Usaquén
T.P.20.281

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**SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES**

2020

Bogotá, D.C.

Doctor

Alvaro Correa Ordoñez
Apoderado

7705
Oficio No.

REFERENCIA: Radicación No. 01- 98094

**Trámite 002
Evento 001
Actuación 430
Folios 008**

Como resultado del examen de fondo, realizado con fundamento en el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica:

1. DOCUMENTOS ESTUDIADOS.

- Capítulo descriptivo: folios 13 al 31
- Capítulo reivindicatorio: folios 32 al 34

La solicitud no reivindica prioridad.

2. OBJETO DE LA INVENCION.

Título: "Producto edulcorante a partir de stevia y proceso de elaboración".

La invención se refiere a :

- Un producto edulcorante que comprende: a) una mezcla patrón que consiste de cristales naturales de stevia y el primero o ambos de los siguientes grupos de componentes: uno o más enmascarantes naturales y uno o más edulcorantes sintéticos; b) otros excipientes. Los enmascarantes naturales pueden ser escogidos de manera independiente o conjunta del grupo que consiste de ácido cítrico, mentol, sacarosa, fructosa y maltodextrina. Se prepara una mezcla patrón combinando cristales naturales de stevia con 0.01 a 1% de mentol en peso. La preparación de la mezcla patrón consiste en combinar cristales de stevia con 0.001 a 0.5% de ácido cítrico en peso.
- Los edulcorantes sintéticos de la composición pueden ser escogidos de manera conjunta o independiente del grupo que consiste de acesulfame K, aspartame, sucralosa, sacarina sódica y sorbitol.
- La forma de presentación del producto puede ser en tableta, granulado o jarabe.
- un proceso para la elaboración de un producto edulcorante a partir de stevia, el cual comprende las siguientes etapas: a) la preparación de una mezcla patrón que comprende mezclar los cristales naturales de stevia con el primero o ambos de los siguientes grupos de componentes : uno o más enmascarantes naturales, uno o más edulcorantes sintéticos. B) La elaboración de las formas de presentación del producto edulcorante . Los cristales naturales de stevia deben tener un contenido mínimo de glucósidos del 90%.

3. CLARIDAD DE LA SOLICITUD.

De acuerdo a la Decisión 486 de la Comisión de la Comunidad Andina en su Artículo 30.- "Las reivindicaciones definirán la materia que se desea proteger mediante la patente. Deben ser claras y concisas y estar enteramente sustentadas por la descripción"; se hacen las siguientes observaciones al capítulo reivindicatorio:

En la reivindicación 1 se está presentando un producto edulcorante que comprende una mezcla de cristales de stevia y uno o más enmascarantes naturales y/o uno o más edulcorantes sintéticos, adicionalmente en la composición se encuentran otros excipientes. La forma de presentar los componentes de esta formulación es muy general ya que cualquier compuesto que cumpla con la función de ser un enmascarante natural o un edulcorante sintético podría hacer parte de la formulación; por esto la composición que se pretende proteger no es clara y no se está delimitando la materia que se desea proteger. De otra parte se indica que la composición contiene la mezcla patrón de los cristales de stevia y puede contener enmascarantes naturales o edulcorantes sintéticos o estos dos últimos compuestos; por lo tanto se deben definir los compuestos que se encuentran presentes en la formulación evitando la ambigüedad que presenta esta reivindicación al no precisar si la composición contiene tanto enmascarante como edulcorante o los dos componentes nombrados anteriormente.

Las reivindicaciones 6 a 8 se encuentran caracterizando el producto según su forma de presentación lo cual no es correcto ya que los productos se caracterizan en términos de sus componentes y proporciones en las que se encuentran los mismos. Por lo tanto se deberían describir cada uno de los componentes que se encuentran presentes en cada una de las formas de presentación.

De otra parte en la reivindicación 9 se está presentando un proceso para la elaboración de un producto edulcorante a partir de stevia, las etapas que se presentan en este procedimiento para describirlo son muy generales y no indican las particularidades que el procedimiento pueda presentar en cada una de las etapas. La forma de presentar un procedimiento es por medio de la secuencia de etapas que lo componen así como las condiciones en las cuales se llevan a cabo tales etapas. Según lo que se encuentra descrito en esta reivindicación se debería describir las etapas en las cuales se logra la preparación de la mezcla patrón y también la forma de preparación de las diferentes presentaciones del producto.

En las reivindicaciones 10 a 17 se encuentran caracterizando el proceso en términos de los componentes de la formulación más no por las condiciones en las cuales se lleva a cabo cada etapa del proceso; por lo tanto estas reivindicaciones no definen la materia que se desea proteger.

La materia contenida en las reivindicaciones 18 y 19 se encuentra presentada en la reivindicación 5; por lo tanto en estas reivindicaciones se está presentando la misma materia lo que resta claridad a la solicitud.

Se le recuerda al solicitante que las modificaciones que se consideren para el capítulo reivindicatorio no deben contener materia nueva con respecto a la presente solicitud.

Según las observaciones anteriormente realizadas, la solicitud no cumple con el artículo 30 de la Decisión 486 y se deben realizar los ajustes necesarios para continuar con el trámite correspondiente de la solicitud. De acuerdo a los cambios que se realicen a la solicitud se debe ajustar el título de la misma.

4. DETERMINACIÓN DEL ESTADO DE LA TÉCNICA

Según la definición dada en el art. 18.- "Una invención se considerará nueva cuando no esté comprendida en el estado de la técnica.

El estado de la técnica comprenderá todo lo que haya sido accesible al público por una descripción escrita u oral, utilización, comercialización o cualquier otro medio antes de la fecha de presentación de la solicitud de patente o, en su caso, de la prioridad reconocida.

Sólo para el efecto de la determinación de la novedad, también se considerará dentro del estado de la técnica, el contenido de una solicitud de patente en trámite ante la oficina nacional competente, cuya fecha de presentación o de prioridad fuese anterior a la fecha de presentación o de prioridad de la solicitud de patente que se estuviese examinando, siempre que dicho contenido esté incluido en la solicitud de fecha anterior cuando ella se publique o hubiese transcurrido el plazo previsto en el artículo 40." , se realizó la búsqueda de anterioridades en los archivos con que cuenta esta Oficina y se encontraron los siguientes documentos relacionados con la materia de la presente solicitud:

Nº	DOCUMENTO	TÍTULO	FECHA DE PUBLICACION
D1	US 3,296,079	Products sweetened without and characterized by freedom from aftertaste.	1967-01-03
D2	JP2001-258502	Sweetener composition, method for imparting sweetness and its use.	2001-09-26

Los documentos mencionados se anexan al expediente.

6. EVALUACIÓN DE LOS REQUISITOS DE PATENTABILIDAD

El artículo 14 de la Decisión 486 de la Comisión de la Comunidad Andina establece que: "Los Países Miembros otorgarán patentes para las invenciones, sean de producto o de procedimiento, en todos los campos de la tecnología , siempre que sean nuevas, tengan nivel inventivo y sean susceptibles de aplicación industrial."

En cumplimiento del artículo 14 de la Decisión 486, se procedió a evaluar los requisitos de novedad, nivel inventivo y aplicación industrial con el fin de establecer la patentabilidad de la invención reivindicada en la solicitud en estudio.

6.1. Evaluación de NIVEL INVENTIVO

De acuerdo al art. 18.- "Se considerará que una invención tiene nivel inventivo si para una persona del oficio normalmente versada en la materia técnica correspondiente, esa invención no hubiese resultado obvia ni se hubiese derivado de manera evidente del estado de la técnica"; se conceptúa:

En la anterioridad D1 presenta productos edulcorantes y un proceso para su fabricación; particularmente la invención se refiere a productos que contienen una combinación de agentes endulzantes no nutritivos y una cantidad de maltol como

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enmascarante de sabores desagradables asociados a los agentes endulzantes no nutritivos. Como agentes endulzantes no nutritivos se consideran, por ejemplo, ácido ciclohexilsulfámico, sacarina, xilitol, arabitol, steviolido, y sales fisiológicamente aceptables de los agentes que presentan capacidad para formar tales sales. Se ha observado que los steviolidos provenientes de la Stevia rebaudiana; presentan un sabor desagradable por lo que al combinar tales compuestos con cierta cantidad de un enmascarante, tal como el maltol; el sabor se torna aceptable.

En la anterioridad D2 se presenta una composición edulcorante la cual se obtiene por la combinación de accesulfame K con stevia. Esta composición es utilizada para endulzar alimentos y bebidas o compuestos farmacéuticos. El propósito de esta composición es la de aumentar el poder edulcorante de la misma con un compuesto que no aporte calorías.

Como se puede observar con las anterioridades presentadas, se encuentra en el estado de la técnica composiciones en las cuales esta presente stevia con enmascarantes del sabor como maltol así como también se encuentran composiciones en las cuales se incluye stevia mezclada con un edulcorante artificial como lo es el accesulfame K. También se conoce en la industria de alimentos el uso de enmascarantes del sabor como el mentol o el ácido cítrico en diferentes productos. Estas composiciones que se presentan en el estado de la técnica resuelven el problema del sabor desagradable que presentan los glucósidos de la stevia.

Por lo tanto, la composición que presenta la invención es posible derivarla del estado de la técnica que se encuentra publicado antes de la fecha de presentación de la presente solicitud, por lo que dicha solicitud carece de nivel inventivo.

En conclusión los requisitos de patentabilidad de la presente solicitud se encuentran afectados así:

Nº	DOCUMENTO	REVINDICACIONES AFECTADAS	REQUISITO QUE AFECTA
D1	US 3,296,079	1 a 8 y 18 a 19	NIVEL INVENTIVO
D2	JP2001-258502	1 a 8 y 18 a 19	NIVEL INVENTIVO

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta días contados a partir de la fecha de la notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la circular única No. 10 de 2001.


CLARA C. DE JAIMES
Jefe de la División de Nuevas Creaciones (E).

El anterior requerimiento fue notificado por fijación en lista, de fecha 28 JUN 2007

CONCEPTO TÉCNIC Nº 0873	EXAMINADOR TÉCNICO CÓDIG 202064
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3,296,079 PRODUCTS SWEETENED WITHOUT SUGAR AND CHARACTERIZED BY FREEDOM FROM AFTER- TASTE

John M. Gallico, Forest Hills, N.Y., assignor to Chas. Pfizer & Co., Inc., New York, N.Y., a corporation of Delaware
Filed Dec. 3, 1965, Ser. No. 329,344
4 Claims. (Cl. 167-93)

This invention relates to sweetened products and to processes for the preparation thereof. More particularly, it is concerned with products containing in combination non-nutritive sweetening agents and no aftertaste-masking agents of maltol.

The products contemplated by this invention comprise a number of compositions and other substances in which non-nutritive sweetening agents are used. Foods, such as various fruits, gelatin desserts, carbonated beverages, dietetic candies, jams, jellies, frozen desserts, and the like, oral cleansing agents, such as toothpastes, powders and mouth washes, excipients, medicinal preparations and tobacco are examples of products in which non-nutritive sweetening agents are commonly used.

Maltol, also known as 2-methyl-3-hydroxy-4-pyrone, is a gamma-pyrone of rapidly increasing importance for enhancement of odors and flavors of many products. For example, as is disclosed in the copending patent application, Serial No. 318,153, filed September 19, 1963, and assigned to the assignee of the instant application, maltol has been found, surprisingly, to enhance the apparent sweetness of natural sugars. Thus, as is disclosed in the said copending application, part of the natural sugar in many products may be replaced with relatively very much smaller amounts of maltol. In flavored extracts, it has now been found that maltol does not exhibit a noticeable enhancing effect with non-nutritive sweetening agents as is observed with natural sugars such as sucrose, dextrose, glucose, and the like. Furthermore, while not enhancing the sweetness of non-nutritive sweetening agents, maltol has been found to mask the bitter and metallic aftertastes commonly associated with the use of said agents. This masking effect is surprising in view of the use of maltol as an enhancer. The present invention is concerned with the newly-discovered use of maltol to mask the unpleasant aftertaste associated with the use of non-nutritive sweetening agents.

Among the non-nutritive sweetening agents contemplated by the instant invention are, for example, cyclohexylsulfamic acid, saccharin, xylitol, urechial, perillarin, steviolide, and physiologically-acceptable salts of these agents capable of forming salts.

It is a matter of common knowledge and experience that the said non-nutritive sweetening agents above-mentioned provide a bitter taste in excessive concentrations. Some, more, in addition, observe that a metallic aftertaste is imparted to products in which the said agents are used. Furthermore, it is well established that the threshold for bitterness varies with individuals. For the majority of the population, this threshold, which is indicated to be of the order of 0.1% with saccharin and approximately 0.05% with cyclohexylsulfamic acid salts, is well above the level of ordinary use. However, even with excipients such as the use of combinations of cyclohexylsulfamic acid salts and saccharin, it is still significant that aftertaste is experienced by a considerable percentage of the population. Furthermore, from the standpoint of ease of transportation and some state regulations, it is not al-

ways feasible to use saccharin in combination with cyclohexylsulfamic acid in certain products. As a result, significant proportions of the population in certain areas experience aftertaste, particularly in carbonated beverages which are sweetened solely with cyclohexylsulfamic acid salts.

In addition to aftertastes associated with the use of saccharin and cyclohexylsulfamic acid and their salts, it is noted that such aftertastes are observed following the use of other non-nutritive sweetening agents such as acesulfame, also known as 1,2,3,4,5-pentamethyl-2-furazolidone, xylitol, an isomer of acesulfame, and steviolide, an isolate of the plant, *Stevia rebaudiana*, and many others.

It has now been found that the use of an aftertaste-masking amount of maltol with products sweetened with non-nutritive sweetening agents provides highly acceptable products when tested by a number of different individuals. These said products are characterized by a complete lack of bitter and metallic flavors and are much more acceptable than the same products sweetened with the non-nutritive sweetening agents in which maltol has not been added.

It is, therefore, a principal object of the instant invention to provide an improved method for sweetening products with non-nutritive sweetening agents whereby they are made more widely acceptable. It is a further object of the instant invention to provide compositions sweetened with non-nutritive sweetening agents, said compositions being free of bitter and metallic aftertastes.

These and other objects of the instant invention are readily achieved through practice of the following process: In a method for sweetening products, the improvement which comprises masking the unpleasant aftertaste of non-nutritive sweetening agents by incorporating with said sweeteners maltol in an amount to provide from about 0.003 to about 160% by weight based on said sweetening agent.

The instant invention exemplifies, in addition to the said process, compositions containing in combination a non-nutritive sweetening agent characterized by a bitter and metallic aftertaste and an aftertaste-masking amount of maltol. Furthermore, it contemplates oral cleansing agents containing in combination a non-nutritive sweetening agent characterized by a bitter and metallic aftertaste and an aftertaste-masking amount of maltol.

With respect to the amount of maltol required to mask the bitter aftertaste, it is found that maltol in an amount to provide from about 0.003 to about 160% by weight based on the non-nutritive sweetening agent, is effective. Below about 0.002% of maltol, with amounts of low strength relative to sucrose, such as acesulfame and xylitol, some of the subjects begin to have difficulty in recognizing its beneficial effect and above about 160% with the most powerful sweeteners such as perillarin, maltol begins to contribute a flavor note of its own. On another basis, the effective amount of maltol can be computed, based on the weight of the product sweetened with non-nutritive sweetening agent; generally speaking, maltol is found effectively to mask the aftertaste when it is present in an amount to provide from about 5 to about 400 parts per million (p.p.m.) based on the said sweetened product. As will be well understood by those skilled in this art of product formulation, the aftertaste-masking amount of maltol readily may be found by adjusting the concentration within the stated ranges. The proper amount will depend on the nature of the product and the amount of sweetener used. Higher amounts of maltol are required

If a particularly bitter ingredient such as stevioside, commonly employed in toothpastes, is to be masked with the sweetening agent. Lesser amounts of maltol are required if only small amounts of non-nutritive sweetening agents are added to products, such as canned fruits, which contain natural sugars. Generally, 30 p.p.m. of maltol has been found effectively to mask the bitter cyclamate flavor of a concentrated sweetening preparation for table use, which contains about 5% by weight of calcium cyclohexylsulfamate; this represents an amount of maltol to provide about 0.05% by weight based on said sweetener. Furthermore, diabetic syrups such as cherry-cola, grape, orange and raspberry, sweetened with non-nutritive sweetening agents are freed of aftertaste by adding 25 and 50 p.p.m. of maltol since these syrups typically contain about 0.4% by weight of said sweeteners, this represents an amount of maltol sufficient to provide from about 0.02 to about 0.12% by weight based on said sweetener. Low-calorie carbonated beverages are freed of aftertaste by adding from about 5 to about 30 p.p.m. of maltol; since these ordinarily contain about 0.25% by weight of said sweeteners, this represents an amount of maltol sufficient to provide from about 0.3 to about 1.2% by weight based on said sweetener.

An specific embodiments of the instant invention, special mention is made of the lactate in maltol obtained it, in addition to maltol, an amount of from about 0.2 to about 15 parts, based on each part of the sweetening agent, of a polyhydric alcohol such as propylene glycol, glycerol or sorbitol is added. Products with very desirable softness and freedom from aftertaste and bitterness are thus obtained, as will be exemplified more fully hereinafter, by combining non-nutritive sweetening agents, polyhydric alcohols and maltol; these are especially useful for table use when it is desired to sweeten, for example, coffee and tea or grapefruit or other concentrates.

The following examples are illustrative of the process of the instant invention and of the products obtainable therefrom. They are not to be construed as being limiting in any manner.

Example I

Sodium saccharin is added to water in an amount to provide 0.1% by weight. Sodium saccharin is about 500 times as sweet as sugar. The solution has a disagreeable metallic aftertaste. Maltol is added in increments to provide 5, 10, 20, 30, 40, 100, 300, 500 and 400 p.p.m., respectively. The solution is tasted after each addition and it is found to be free of aftertaste when it contains between 5 and 400 p.p.m. of maltol. Maltol has thus been added effectively in an amount to provide from about 0.3 to about 4% by weight based on said saccharin.

The procedure is repeated substituting for 0.1% of sodium saccharin, 1.05% of sodium cyclohexylsulfamate, also known as sodium cyclamate. Calcium cyclohexylsulfamate is about 30 times as sweet as sucrose. It is found that the bitter aftertaste associated with this concentration of this non-nutritive sweetening agent is masked by the addition of maltol in an amount to provide from 5 to 400 p.p.m. by weight based on the aqueous solution; this is an amount of maltol sufficient to provide from about 0.05 to about 3.5% by weight based on said sweetener.

The procedure is repeated substituting a 0.166% aqueous solution of stevioside, a non-nutritive sweetening agent derived from a plant, for the 0.1% saccharin solution. Stevioside is about 300 times as sweet as sucrose. The aftertaste of this agent is masked by the addition of maltol in an amount to provide from 5 to 400 p.p.m. by weight based on the aqueous solution; this is an amount of maltol sufficient to provide from about 0.3 to about 2.4% by weight based on said sweetener.

The procedure is repeated substituting for the 0.1% solution of saccharin, respectively, the following aqueous solutions: 0.033% perfurline, also known as 1-pyridyl-

hyde α -pyridoxine, which is 2000 times as sweet as sugar, and 15% solutions of xylitol and of arabinol. In all cases the aftertaste of these non-nutritive sweetening agents are masked by from 5 to 400 p.p.m. of maltol. The amount of maltol used with perfurline is from about 2 to about 160% by weight based on said sweetener; the amount of maltol used with xylitol and arabinol is from about .003 to about 0.25% by weight based on said sweetener.

Example R

A raspberry-flavored dihydrate syrup simulating a 40% sugar-containing syrup, but containing no sugar, is formulated:

	Grams
Soluble saccharin	0.05
Calcium cyclohexylsulfamate	0.30
Sodium cyclamate	0.30

Water to make a total volume of 100 ml.

Raspberry flavoring.

The syrup is characterized by a bitter and metallic aftertaste. Maltol in an amount to provide 25 p.p.m., based on the syrup, or 0.68% based on the combined weight of the non-nutritive sweetening agents, masks the aftertaste. Similarly, cherry-cola, grape and orange-flavored syrups are prepared. The aftertaste is effectively masked with 25 and 50 p.p.m. of maltol in the cherry-cola flavored syrup, with 50 p.p.m. of maltol in the grape flavored syrup and with 30 p.p.m. of maltol in the orange flavored syrup.

Example III

A carbonated black cherry-flavored beverage is formulated:

	Grams
Sodium cyclohexylsulfamate	0.25
Methyl cellulose	0.08
Peppin	0.009

Water, 100.0.

Black cherry flavor, minor proportion.

This beverage has a distinct, bitter aftertaste. This aftertaste is masked by the addition of maltol in an amount to provide 20 p.p.m., based on the beverage. This is equivalent to 0.4% of maltol based on the non-nutritive sweetening agent.

Similar beverages were prepared with different flavors; 20 p.p.m. of maltol masked the bitter non-nutritive sweetening agent base in black raspberry-, orange-, root-beer-, grape-, and lemon-flavored diabetic carbonated beverages.

Example IV

To a carbonated black cherry-flavored beverage formulated as in Example III is added sorbitol in an amount to provide 1.3 grams per 100 grams of beverage. This amount corresponds to 5.2 parts of sorbitol per part of non-nutritive sweetening agent. Maltol is present in an amount to provide 20 p.p.m. based on the beverage. This beverage was characterized by a freedom from bitter and metallic aftertaste and the sorbitol addition provides a solid, sweet, and thicker tasting beverage than does maltol alone, without sorbitol.

Example V

A concentrated fluoride-containing (0.5% by weight of aluminum fluoride) toothpaste comprising 1.0% by weight of calcium cyclohexylsulfamate is characterized by a bitter and metallic aftertaste. This aftertaste is effectively masked by incorporating maltol in an amount to provide 200 p.p.m. based on the said toothpaste; this is an amount of maltol sufficient to provide 2% by weight based on said sweetening agent.

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Example VI

The following tabulated missions were prepared:
 EASTON BY WESTON

[illegible]

All of the said solutions were diluted with water (1 part of solution diluted to 100 parts) and the diluted solutions were possessed of bitter and astringent aftertastes. The addition of methyl to an amount to provide 10 p.p.m., based on the diluted solution, masked the aftertaste. Furthermore, the solution was rendered more clearly sweet to the taste, less bitter, milder and somewhat more bland. Substantially the same results were obtained at 5 p.p.m. of methyl, and at 20 and 100 p.p.m. of methyl. It was observed that the use of polyhydric alcohols produced a milder product than if methyl alone was used. Furthermore, if methyl is substituted altogether, there is no soothing effect of the absence of the semi-synthetic sweetening agents with propylene glycol, acetic acid, glycerol or solutions thereof.

Results

A dietetic intervention is recommended

	Parts
Calcium cyclamate	1
Sodium monophosphate	4
Propylene glycol	1
Water	100

This solution, containing 0.2 part of polyaldehyde alcohol per part of combined non-nutritive sweetening agent, is diluted with water (1 part solution per 99 parts of water) and mixed in an amount to provide 5 p.p.m. and 10 p.p.m. is added thereto. These solutions produce a diabetic milk taste free of bitter and masticating aftertastes, which characterize the solution without alcohol.

Similarly, a sunscreen, suitable for table use, varied from the above formulation is prepared by substituting for 1 part of propylene glycol a combination of 30 parts of propylene glycol and 30 parts of acethyl, with decreasing the amount of water to 35 parts and leaving out the cyclamate. This solution, which contains 15 parts of

conjugated polyhydric alcohols per part of non-nutritive sweetening agent, is diluted with 100 parts of water per part of solution and is rendered free of a metallic after-taste by adding metal in an amount to provide 10 p.p.m. based on the diluted solution. It is characterized by a mild and clearly sweet taste.

What is defined as:

1. In a method for sweetening susceptible with non-nutritive sweetening agents, the improvement which comprises making the unpleasant aftertaste of said non-nutritive sweetening agents by incorporating with said sweetener sugar in an amount to provide from about 0.003 to about 160% by weight based on said sweetening agent.
2. A composition containing in combination a non-nutritive sweetening agent, characterized by a bitter and caustic aftertaste and selected from the group consisting of cyclohexylsulfamide acid, saccharin, xylitol, erythritol, pentarthritis, neovividin, and their physiologically acceptable salts, and sucralose in an amount to provide from about 0.003 to about 160% by weight of said sweetening agent.
3. In a method for sweetening oral clearing agents with non-nutritive sweetening agents, the improvement which comprises making the unpleasant aftertaste of said non-nutritive sweetening agents by incorporating with said sweetener sucralose in an amount to provide from about 0.003 to about 160% by weight based on said sweetening agent.
4. An oral clearing agent containing in combination a non-nutritive sweetening agent, characterized by a bitter and caustic aftertaste and selected from the group consisting of cyclohexylsulfamide acid, saccharin, xylitol, erythritol, pentarthritis, neovividin, and their physiologically acceptable salts, and sucralose in an amount to provide from about 0.003 to about 160% by weight of said sweetening agent.

References Cited by the Board

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PATENT ABSTRACTS OF JAPAN

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(54) SWEETENER COMPOSITION, METHOD FOR IMPARTING
SWEETNESS AND ITS USE

(57)Abstract:

PROBLEM TO BE SOLVED: To improve the sweetness of 6-methyl-3,4-dihydro-1,2,3-coumarin-4-one-2,2-dioxide-potassium (acesulfame K), to obtain an acidic composition having stable quality with no external color change and containing improved sweetness, and to obtain neutral foods and drinks decreasing no sweetness during their processing and distribution and having stable and good sweetness.

SOLUTION: This sweetener composition is obtained by combining acesulfame K with stevia. Foods or pharmaceuticals are obtained by including the composition. The subject method for imparting sweetness to foods and drinks or pharmaceuticals comprises using the composition. Acidic foods and drinks, pharmaceuticals or neutral foods and drinks are obtained by including acesulfame K singly or its combination with stevia or sucralose.

