

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



DELEGATURA PROPIEDAD INDUSTRIAL

División de Nuevas Creaciones

PCT
SOLICITUD

PATENTE DE INVENCION

ENTRADA EN FASE NACIONAL

21. EXPEDIENTE No.

05-108124

54. **TITULO** COMPOSICIONES ANHIDRAS PARA LA LIMPIEZA DE LA PIEL QUE COMPRENDEN AL MENOS
UN ACIETE EMOLIENTE INMISCIBLE EN AGUA, UN AGENTE EMULSIFICANTE, UN MATERIAL DE EXFO
LACION Y/O PULIDO Y UNA CERA

51. **CLASIFICACION INTERNACIONAL**

A61K7/50

71. **SOLICITANTE**

COLGATE-PALMOLIVE COMPANY

DOMICILIO

NEW YORK, NEW YORK, ESTADOS UNIDOS DE AMERICA

74. **APODERADO**

JUAN PABLO CADENA SARMIENTO

22. **SANTAFE DE BOGOTA, D.C.**

24/10/2005



PETITORIO

AS: 98.893



SUPERINTENDENCIA Y COMERCIO
 Radicación : 05100124 00000000 Folios: 138
 Fecha (PDI): 2005-10-24 16:50:29
 Trámite : 011 PDI-PATENTE 379 FASE NACI 411 PRESENTAC
 Dependencia: 2020 DIVISION DE NUEVAS CREACIONES

FORMULARIO ÚNICO DE SOLICITUD DE PATENTE
 PCT
 ENTRADA EN FASE NACIONAL

1

SOLICITUD DE:

☒ Patente de Invención.

☐ Patente de Modelo de Utilidad.

☐ Capítulo I.

☒ Capítulo II.

2

SOLICITANTE
 (71)

Nombre: COLGATE - PALMOLIVE COMPANY

Dirección: 300 Park Avenue, New York, NY 10022,
 Estados Unidos de América
 Nacionalidad o Domicilio: Estados Unidos
 Lugar de Constitución: Estados Unidos
 Teléfono: Fax:
 E-mail

IDENTIFICACION

C.C. ☐ NIT ☐

C.E. ☐ Otro ☐

Cual _____

Número _____

3

REPRESENTANTE
 O APODERADO

Nombre: JUAN PABLO CADENA SARMIENTO

Dirección: Cra. 7 No. 16-56 Piso 9

Teléfono: 380-2200 Fax: 380-2700
 E-mail:

IDENTIFICACION

C.C. ☒ NIT ☐

C.E. ☐ Otro ☐

Cual _____

Número 80.410.337 TP 57492

4

INVENTOR (ES)
 (72)

Nombre: Marie Johansson, Josh Ghaim, Nadia Sollman

Dirección: 22 East Drive, Watchung, New Jersey 07069, Estados Unidos de América; 89
 Rachel Court, Franklin Park, New Jersey 08823, Estados Unidos de América; 53 Race Track
 Road, East Brunswick, New Jersey 08816, Estados Unidos de América

Nacionalidad o Domicilio: Estados Unidos de América (Respectivamente)

5 PCT (86)

Solicitud Internacional No. PCT/US2004/010032 Fecha 01-04-2004

Publicación Internacional No. WO 2004/089330 A1 Fecha 21-10-2004

Título (54): COMPOSICIONES ANHIDRAS PARA LA LIMPIEZA DE LA PIEL QUE COMPRENDEN AL
 MENOS UN ACEITE EMOLIENTE INMISCIBLE EN AGUA. UN AGENTE EMULSIFICANTE. UN MATERIAL
 DE EXFOLIACION Y/O PULIDO Y UNA CERA

7 Clasificación Internacional (51) A61K7/50.

8 Prioridad

SI ☒ NO ☐

(33) País de Origen

US

(32) Fecha

03-04-2003

(31) Número de Solicitud

10/406.123

9 Comprobante de pago No 05-68 890.

Fecha 21-10-2005

Instrucciones para el diligenciamiento del presente formulario, ver reverso de esta página.

10

ANEXOS

- ☒ Comprobante de pago de la tasa de presentacion de la solicitud \$443 000
- ☒ Documento que acredita la existencia y representacion legal cuando el solicitante sea persona juridica
- ☒ Poderes si fuere el caso Fotocopia autenticada
- ☒ Documento de cesion del inventor al solicitante o a su causante
- ☐ Declaraciones
- ☒ Copia de la solicitud internacional (Resumen descripcion reivindicaciones dibujos)
- ☒ Traduccion de la solicitud internacional al castellano (Resumen descripcion reivindicaciones dibujos)
- ☐ Copia del examen preliminar efectuado por la IPEA
- ☐ Traduccion del examen preliminar efectuado por la IPEA
- ☐ De ser el caso copia del contrato de acceso
- ☐ De ser el caso documento que acredite la licencia o autorizacion de uso de conocimientos tradicionales de las comunidades indigenas
- ☐ De ser el caso certificado de deposito del material biologico
- ☐ Arte final 12x12
- ☐ De ser el caso informacion sobre otras solicitudes de patente o titulos obtenidos en el extranjero por el mismo titular o su causante relacionadas parcial o totalmente con la invencion de esta solicitud
- ☒ Otros Tarjeta de Propietarios

11 FIGURA CARACTERISTICA

12 Solicito la concesion de la patente

NOMBRE JUAN PABLO CADENA SARMIENTO

FIRMA

C C 80 410 337 de Usaquen TP 57492 del C S J

3

SUPERINDUSTRIA Y COMERCIO
Radicación : 03100124 00000000 Folios: 138
Fecha (FEB): 2005-10-24 16:50:29
Trámite : 011 PCI-PATENT 379 FASE NACI 411 PRESENTAC
Dependencia: 2960 DIVISION DE NUEVAS CREACIONES

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT : 800176089-2

RECIBO OFICIAL DE CAJA : 05 - 68,890
FECHA : SEPTIEMBRE 8 DE 2005

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PAGO	Vr. PAGO
BRIBARD & CASTRO LTDA	CONSIGNACION	BANCO POPULAR	050-00110-6	27975995	08/09/2005	37,220,000.00

***** CONCEPTO *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-01 SOLICITUDES	1 TRAMITES DE SOL. DE PATENTE DE IN	443,000.00
		TOTAL :	\$ 443,000.00

SON: CUATROCIENTOS CUARENTA Y TRES MIL PESOS

RESPONSABLE : 

RECIBO DE CAJA APLICADO AL EXPEDIENTE No. _____

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES

4

PATENTE ☒ PCT/US2004/010032 MODELO DE UTILIDAD ☐ DISEÑO INDUSTRIAL ☐

SOLICITANTE/S. RAZON SOCIAL O APELLIDOS Y NOMBRES COLGATE-PALMOLIVE COMPANY

DOMICILIO NEW YORK, NEW YORK, ESTADOS UNIDOS DE AMERICA

APODERADO JUAN PABLO CADENA SARMIENTO

TITULO COMPOSICIONES ANHIDAS PARA LA LIMPIEZA DE LA PIEL QUE COMPRENDEN AL MENOS UN ACEITE EMOLIENTE INMISCIBLE EN AGUA, UN AGENTE EMULSI. CLASIFICACION

EXPEDIENTE No. FECHA DE SOLICITUD ROLLO MICROFILM

CERTIFICADO No. FECHA DE CONCESION VIGENCIA DESDE HASTA

PRORROGA CAMBIO DE NOMBRE

TRASPASO A

INVENTOR (ES) MARIE JOHANSSON, JOSH GHAIM, NADIA SOLIMAN

OTROS

OFICINA DE COMUNICACIONES

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 October 2004 (21.10.2004)

PCT

(10) International Publication Number
WO 2004/089330 A1

(51) International Patent Classification⁷: **A61K 7/50**

(21) International Application Number:
PCT/US2004/010032

(22) International Filing Date: **1 April 2004 (01.04.2004)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
10/406,123 3 April 2003 (03.04.2003) US

(71) Applicant (for all designated States except US): **COLGATE-PALMOLIVE COMPANY [US/US]; 300 Park Avenue, New York, New York 10022 (US).**

(72) Inventors; and

(75) Inventors/Applicants (for US only): **JOHANSSON, Marie [SE/US]; 22 East Drive, Watchung, New Jersey 07069 (US). GHAIM, Josh [US/US]; 89 Rachel Court, Franklin Park, New Jersey 08823 (US). SOLIMAN, Nadia [US/US]; 53 Race Track Road, East Brunswick, New Jersey 08816 (US).**

(74) Agent: **MIANO, Rosemary, M.; Colgate-Palmolive Company, 909 River Road, P.O. Box 1343, Piscataway, New Jersey 08855 (US).**

(81) Designated States (unless otherwise indicated, for every kind of national protection available): **AE, AG, AL, AM,**

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HD, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): **ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **COMPOSITION**

(57) Abstract: A skin composition which is at least substantially anhydrous and comprises a) At least one water immiscible emollient oil in sufficient quantity to provide emolliency to skin, b) At least one emulsifying agent capable of forming an emulsion, in situ, on the skin with the above oil when water is added to the said composition, the said emulsifier in such quantities that the oil is substantially removed from the skin, c) A water soluble, at least substantially insoluble in the composition skin exfoliative and/or skin polishing material in sufficient quantities to remove dead cells from the skin during application of the composition and, d) At least one wax in sufficient quantity to at least enhance the physical stabilization of the composition.

WO 2004/089330 A1

Composition

Background of the Invention

Aqueous skin cleansing compositions have been used for centuries. The problems with them are well known with respect to removing oil based skin deposits or leaving the skin too dry. Likewise oil-in-water and water-in-oil emulsions also have various difficulties. These and various other issues have been disclosed in WO 01/85103, published on November 15, 2001.

Prior attempts have been made to overcome the foregoing problems of aqueous emulsions by employing anhydrous skin cleansers. Anhydrous skin cleansers, sometimes called waterless cleansers, typically contain high concentrations of water-insoluble solvents, which makes them generally effective at removing oily undesirable moieties from the skin, but less effective in removing water-soluble undesirables. Further, anhydrous skin cleansers typically are not cosmetically elegant tending to have a heavy, greasy feel making them unappealing to the touch and are not easily removed from the skin. They generally must be wiped off with toweling, leaving the skin feeling greasy or need to be washed off with strong soap, leaving the skin feeling harsh and dry.

Various solutions to these problems have been proposed in the prior art. For example, US Patent No. 4,673,526 proposes an anhydrous three component system designed for skin cleansing having a solid particulate matter of various polymers to remove oily particles while being essentially multiphase. The publication WO 01/85103 discloses a substantially anhydrous four component system comprising a) at least one water-immiscible cosmetic emollient oil, the cosmetic emollient oil comprising a major portion of the formulation; b) at least one oil-gelling agent that is both water-insoluble and oil-insoluble; c) at least one emulsifying agent capable of forming an emulsion, in situ, on the skin when a small amount of water is added gradually to the substantially anhydrous formulation during use; and d) a substantially crystalline water-soluble, abrasive material that is

substantially insoluble in the substantially anhydrous vehicle of the formulation.

However, each one of them is not totally satisfactory in at least one parameter. A composition within WO 01/85103 has 5 – 8 wt % oil separation at the top, for example. Because of separation, obtaining the same product distribution with continuous uses and, therefore, giving equivalent benefits is difficult. Additionally, the 4,673,526 patent composition is limited to cleansing by removal of oily substances on the skin without the addition of fat bodies to the skin. The WO 01/85103 composition should be removed from the skin with a relatively small amount of water, preferably up to 2 parts of the actual oily composition on the skin. These, and other disadvantages can be overcome by the discovery and use of a new at least substantially anhydrous skin cleansing composition.

The present anhydrous skin cleansers provide skin cleansing exfoliation and/or polishing in a cosmetically aesthetic vehicle while, at the same time, leaving the skin exceptionally soft, smooth and moisturized. The composition has at least enhanced phase stability, can polish and/or exfoliate the skin, and can be effectively removed from the skin with varying amounts of water.

Summary of the Invention

In accordance with the invention, there is a composition which is at least substantially anhydrous and comprises:

- a) at least one water insoluble emollient oil in sufficient quantity to provide emolliency to the skin,***
- b) at least one emulsifying agent capable of forming an emulsion in situ on the skin with the above oil when water is added to the said composition,***

- c) ***exfoliative and/or polishing material in sufficient quantities to remove cell debris from the skin during application of the composition.***
- d) ***at least one wax in sufficient quantity to at least enhance the physical stabilization of the composition.***

A further aspect of the invention is the application of this composition to the skin, working the composition into the skin, adding water to the composition on the skin, with continual working into the skin, if desired, and then removing from the skin as a solution or an aqueous emulsion.

Detailed Description of the Invention

At least one water immiscible emollient oil component is present in the composition. Illustrative examples of the oil(s) include:

1. ***Mineral oils: paraffin oil, petroleum jelly oil.***
2. ***Animal oils: Purcellin oil, perhydrosqualene, fish oils and lanolin oil.***
3. ***Vegetable oils: Sweet almond oil, palm oil, calophyllum oil, avocado oil, olive oil, castor oil, cereal germ oil such as oil of wheat germs, canola oil, sunflower oil, soybean oil and jojoba oil.***
4. ***Silicone oils: Dimethylpolysiloxane, cyclomethicone***
5. ***Esters: Butyl myristate, isopropyl myristate, cetyl myristate, isopropyl palmitate, butylstearate, hexadecyl, stearate, isopropyl stearate, octyl stearate, Isoceryl stearate, decyl oleate, hexyl laurate di-caprylate of propylene glycol, di-isopropyl adipate***
6. ***The organic alcohols: Oleic alcohol, linoleic alcohol, linolenic alcohol, Isostearyl alcohol, octyl dodecanol***
7. ***The esters derived from lanolic acid: Isopropyl lanolate, Isocetyl lanolate***
8. ***Free fatty acid including linoleic, myristic, palmitic, stearic and the like.***

In addition to the classes of the compounds mentioned above, one can also utilize as additional illustrative oils the acetyl glycerides, the octanoates and decanoates of alcohols and polyalcohols such as those of glycol and glycerol, the ricinoleates of alcohols and polyalcohols such as that of cetyl.

The oil or oils can be in the composition at a minimum of about 15, 20, 25, or 30 wt % of the composition. The maximum amount of oil can be up to about 85, 75, 65, or about 60 wt % of the composition.

The emulsifier, component b, is also an important portion of the composition. The ability to emulsify the oil, component a, when water is added, is a significant effect of the composition. This provides a clean surface to the skin after water is added but still allows the skin to benefit from the emolliency of the oil. To facilitate the forming of an emulsion upon the first addition of water to the composition in contact with the skin more than one emulsifier can be employed. Therefore, it is preferred to use a mixture of at least two emulsifiers, one having a relatively low HLB value preferably of not more than 8, more preferably in the range of about 3 to about 7, and one having a relatively high HLB of preferably at least 8, more preferably in the range of about 10 to about 19. "HLB" refers to the well known calculated Hydrophile-Lipophile-Balance value assigned to emulsifiers, most commonly nonionic emulsifiers, relating to the water solubility of the emulsifier. An explanation of the HLB system is given in "The HLB System, A Time Saving Guide to Emulsifier Selection" by ICI Americas, Inc., Wilmington Delaware, 19897, 1984.

The anhydrous skin composition of the present invention readily forms an emulsion when the anhydrous skin composition is contacted with water. Thus, this invention beneficially retains the cell debris removal efficacy without an unwanted oily residue but leaving the skin feeling smooth and moisturized.

Exemplary emulsifying agents include, without being limited thereto, ethoxylated carboxylic acids, ethoxylated glycerides, glycol esters and derivatives thereof, monoglycerides, polyglyceryl esters, polyhydric alcohol esters and ethers, sorbitan/sorbitol esters, triesters of phosphoric acid, ethoxylated-fatty alcohols, propoxylated polyoxyethylene (POE) ethers and the like and mixtures thereof. Particularly preferred are glyceryl stearate,

PEG-100 stearate, sorbitan stearate, PEG-40 stearate, steareth-2, steareth-20, steareth-100, polysorbate-20, laureth-12, laureth-23, polysorbate 80, sucrose distearate, glyceryl oleate, and the like as well as mixtures thereof.

Generally, at least about 1 wt % of the composition is emulsifier(s), or at least about 2 wt %. Usually no more than about 15 wt % of an emulsifier(s), based upon weight of the composition, is necessary, though no more than about 10 wt % can also be employed.

Component c provides the polishing and/or exfoliative action to the skin. Illustrative exemplification of these materials are salts, polymers and the like. Examples of salts include Dead Sea salt, salts of Group IA and IIA metals and ammonia including for example, sodium chloride, potassium chloride, sodium nitrate, magnesium sulfate, ammonium chloride and the like. Additionally materials such as sugars, starch, urea and water-soluble urea derivatives such as allantoin can also be used. Some of these materials are substantially crystalline. One or more of these water-soluble materials are employed, preferably having sufficient water solubility such that at least about 15 parts by weight of the material will dissolve in 100 parts by weight of water at 20°C, also including at least about 25 or 30 parts solubility and which are insoluble in the anhydrous skin cleanser composition. The particle size of the material should be sufficiently large to serve as a scrubbing and/or polishing agent against the skin to remove dirt and cellular debris, such as rough dead skin cells, and yet not so large as to scratch or irritate the skin.

Although salts, urea, starch and the like can be polishers of skin as well, it is generally preferred to use the polymers as polishing agents although they can have exfoliative characteristics as well. Examples of polymers include:

- 1. The xanthan gums, which are heteropolysaccharides, notably the products known under the commercial names of KELTROL and KELTROL F by the CP KELCO Company, as well as the product known under the commercial name of RHODOPOL 23 and RHODIACARE T sold by RHODIA, INC.*

2. **The carboxymethy starch, notably the product sold under the commercial name of PERFECTAMYL GEL 45 and PERFECTAMYL GEL MB by the AVEBE Company.**
3. **The cellulose ethers such as ethylhydroxyethylcellulose, sold under the commercial name of "BERMOCOLL" by the AKZO NOBEL Company.**
4. **The hydroxyalkylcelluloses such as hydroxyethylcellulose and hydroxypropylmethylcellulose, sold under the commercial name of CELLOSIZ by AMERCHOL CORPORATION, or under the commercial name of NATROSOL by the HERCULES, INC. or under the commercial name of METHOCEL by the DOW CHEMICAL Company, including METHOCEL E50. The hydroxypropyl starch notably the products sold under the commercial names of ZEINA B860 by the GRAIN PROCESSING CORPORATION.**

These polymers desirably have an approximate granulometry allowing a gentle and non-irritating action.

Component c materials, particularly the salts, are generally employed at a minimum level sufficient to provide a skin exfoliative, cleansing, skin debris removal effect. Generally, at least about 1, 2, 3, or 5 wt % of the composition is employed desirably at least about 10 or 15 wt %. No more than about 50 wt % of salts is necessary with quantities not exceeding about 40, 30 or 25 wt % being also beneficial.

The polymers of component c, such as enumerated above, plus starch, sugar and the like can be employed at quantities at least about 1, 2, 3 or 5 wt % of the composition, desirably at least about 2 wt %. Generally, no more than about 50 wt % of the composition can be employed with quantities not exceeding about 40, 30, 25 or 20 wt % being also beneficial. Mixtures of the various components, for example , mixtures of polymers and mixtures of salt (ionics) and polymers can be used.

Component d is the wax material. These materials provide the enhanced phase integrity to the overall composition. When this component is absent, the composition disperses into separate phases, the latter oil phase rising to the top with the heavier salt/polymer materials sinking to the

bottom. This provides an unpleasing appearance to the composition, particularly when it is in a container wherein the composition is "scooped" therefrom as well as presenting a serious potential issue of using a composition richer in one component and/or poorer in one component each time the composition is employed. When a wax is used a single, at least essentially visually homogeneous phase for the composition can be obtained. The previously enumerated disadvantages are avoided or essentially reduced. With a physically stable phase present, the delivery (storage) vehicle possibilities are expanded substantially. For example, the composition can be loaded into a container such as a tube capable of deformation wherein a uniform or at least substantially uniform composition can be delivered to the skin upon pressure deformation of the container's exterior.

Illustrative examples of waxes include:

1. **The mineral waxes: microcrystalline waxes, paraffin, petroleum jelly,**
2. **The fossil waxes: ozokerite, montan wax,**
3. **Animal waxes: beeswax, spermaceti, lanolin wax, lanolin derivatives such as lanolin alcohols, hydrogenated lanolin, hydroxylated lanolin, acetylated lanolin, fatty acids of lanolin, acetylated lanolin alcohol,**
4. **Vegetable waxes: candelilla wax, carnauba wax, sumac wax, cocoa butter wax, and shea butter,**
5. **Hydrogenated waxes which are solid at 25°C: hydrogenated castor oil, hydrogenated palm oil, hydrogenated tallow, hydrogenated cocoa oil, hydrogenated soy oil,**
6. **Synthetic oils: polyethylene, copolymerized polyethylene waxes,**
7. **The fatty esters which are solid at 25°C: monomyristate of propylene glycol, myristyl myristate,**
8. **Silicone oils: methyloctadecane-oxypolysiloxane and poly (dimethylsiloxy) stearoxysiloxane, dimethicone, cyclomethicone.**

Among the waxes, the following compounds can also be utilized:

Cetyl alcohol, stearyl alcohol, the mono-, di- and tri glycerides which are solid at 25°C, stearic monoethanolamide, colophane and its derivatives such as abietates of glycol and glycerol, the sucroglycerides. In general, a wax is a long chain hydrocarboanaecous material which is at least substantially solid at 25°C, and is preferably solid.

The quantity of wax employed in the composition is that amount which enhances phase stabilization. Generally at least about 1, 1.5, or 2 wt % of the composition can be employed, desirably at least about 2 or 3 wt %. Usually no more than about 10 or 15 wt % of the composition is wax. Mixtures of waxes can be employed.

With respect to various terms employed in the specification and claims "substantially anhydrous" means less than about 5 wt % water in the composition, preferably less than about 3 wt % water, more preferably less than about 1.5 wt % water and most preferably 0 to about 1 wt % water. In measuring the water amount, any water of crystallization of a salt is not counted in "substantially anhydrous".

The viscosity of the composition is generally that of a thick liquid or gel but can reach a pasty, paste like consistency. Generally, the viscosity is a minimum of about 10,000 or 15,000 preferably 20,000 to a maximum of about 12,000,000, 2,000,000 or even 600,000 cps.

Viscosity is measured by standard techniques such as the use of a Brookfield Viscometer. Those skilled in the art will use the appropriate spindle and speed combination to cover the range of viscosity to be measured. For less viscous samples, Brookfield spindle #5, at 20 rpm and 20°C is suitable. At high viscosities, a helipath attachment is used with for example, spindle T-E at 2.5 rpm and 20°C. For example, a preferred range of viscosity of about 500,000 to 1,200,000 cps is measured with a Brookfield viscometer using a helipath attachment with a T-E spindle at 2.5 rpm and about 20°C.

The anhydrous skin compositions of this invention can be prepared by heating together the emollient water-immiscible oil ingredients and emulsifier ingredients to a temperature of about 70°C with sufficient mixing agitation to dissolve the emulsifier in the oil to provide a substantially anhydrous oil-

emulsifier phase. The wax is then dispersed with mixing agitation in the anhydrous oil-emulsifier phase until a substantially non-runny, thickened phase begins to form, cooling the admixture, if necessary. The water-soluble exfoliative/polishing ingredient, for example, salt, sugar and/or polymer and optional ingredients, if any, are then added to the composition with sufficient mixing agitation to evenly disperse the ingredients into the composition. Those skilled in the art will understand that the order of incorporation of ingredients and temperatures employed may vary with the type of ingredient and the manner of dissolution recommended by the supplier of the material.

A preferred embodiment for using substantially anhydrous skin compositions formulated according to the invention comprises the following steps:

- a) Applying the anhydrous skin cleanser to substantially dry (not wet) skin, preferably by manually rubbing the applied amount over the skin to thoroughly coat the skin. The rubbing action preferably is a gentle rubbing or massaging for a period of at least about 5 seconds, preferably about 5 to about 30 seconds, to promote the removal of oily or greasy, water-insoluble soils and skin cell residues.*
- b) Contacting the skin cleanser coated skin with an amount of water sufficient to moisten the coated skin, further continuously rubbing and massaging the so-moistened skin until the abrasive ingredient particles substantially dissolve. The formation of an emulsion in situ on the skin can be observed as a change in the appearance of the substantially transparent or translucent coating to a substantially turbid (i.e., milky to opaque) liquid emulsion.*
- c) Removing the resultant emulsion from the skin, preferably by rinsing it off with additional water. The intermediate step b need not be followed. Effective skin emolliency and removal of the composition can both be accomplished by adding water of small, medium or large quantities. The skin can then be dried.*

Step "b" is preferably performed by wetting the skin with tap water and massaging while rinsing the coated skin. Alternatively, a measured amount of water can be applied, if desired. Dissolution of the abrasive ingredients

can be determined during step "b" by a change in the tactile characteristic of the skin cleanser on the skin from generally grainy to generally smooth.

It is recognized that in step "c" the emulsion can also be wiped off first and the wiped skin be then rinsed. Preferably, the novel skin compositions are readily and conveniently removable from the skin by rinsing with water, thereby eliminating the need for tissues or towels and avoiding disposal or laundry problems attendant with the use thereof.

Anhydrous skin formulations prepared with the component and ranges disclosed possess a surprising combination of beneficial effects when used on soiled skin. The term "soil" as applied to skin includes soils from natural sources, such as cellular debris present on the skin, and soils from external sources topically applied to the skin, such as from makeup, cosmetics, etc. Industrial greases, and environmental dirt. The anhydrous skin compositions can thoroughly cleanse the skin of makeups and other water-immiscible cosmetic residues. They effectively remove various types of oily and greasy soils from the skin surface and difficult to solubilize residues. The anhydrous skin compositions can remove rough and dry skin cells. Moreover, the anhydrous skin compositions can smooth and polish the skin surface and leave the skin soft and moisturized.

The following examples further illustrate the anhydrous skin compositions of this invention with specific embodiments, ingredients and methods but are not intended to be limiting.

Below is a preferred example, together with various preferences; all numbers are approximate:

Example 1

20-90% oil, for example a vegetable oil like canola oil, preferably 30-80, more preferably 50-80

5-25% Stearic acid, preferably 7-20% more preferably 8-15

0.25-5% of glycerol stearate preferably 0.5-4% more preferably 0.75-3%

0.25-5% PEG-100 stearate preferably 0.5-4% more preferably 0.75-3%

0.05-5% sucrose distearate preferably 0.1-3% more preferably 0.2-2%

0-5% of shea butter preferably 0.1-4% more preferably 0.2-3%

0.1-5% cetyl alcohol preferably 0.3-3% more preferably 0.5-2%

0.5-5% stearyl alcohol preferably 0.3-3% more preferably 0.5-2%

0.5-5% beeswax preferably 0.75-4% more preferably 1-3%

0-10% maltodextrin preferably 0.5-5% more preferably 1-4 %

0-10% colloidal oatmeal preferably 0.5-8% more preferably 1-5 %

5-50% sodium chloride or sugar preferably 8-45% more preferably 10-40%

0-5% silicone oil

Example 2

Components	Wt %
Canola oil	49.30
Stearic acid	10.00
PEG-100-Stearate	1.5
Glycerol Stearate	1.5
Sucrose Distearate	0.5
Shea butter	0.50
Cetyl alcohol	1.6
Stearyl alcohol	0.6
White beeswax	2.00
Maltodextrin	2.00
Collodial oatmeal	2.00
Sodium chloride	27.80
Fragrance	0.40
Preservative	0.30
Totals	100.00

The components were mixed together.

Samples were placed in 4 oz glass containers and allowed to age at various temperatures. Appearance of phase separation was examined by visual inspection. Amount of separation was estimated by dividing the volume of separated liquid by the total volume in the sample container.

No visual phase separation occurred at 77°F and 110°F for 49 days.

Example 3

Components	Wt %
Canola oil	47.40
Carnauba wax	2.00
Stearic acid	10.00
PEG-100-Stearate	1.5
Glycerol Stearate	1.5
Shea butter	0.50
Cetyl alcohol	1.6
Stearyl alcohol	1.6
White beeswax	2.00
Sucrose Distearate	0.50
Maltodextrin	2.00
Collodial oatmeal	2.00
Sodium Chloride	26.95
Polysorbate80	0.75
Fragrance	0.40
Preservative	0.30
Totals	100.00

Following the protocol of Example 2, there was no visual phase separation at 77°F and 110°F for 104 days.

Comparative Example - An anhydrous exfoliation scrub having the label components below which meet the WO 01/85103 component description was purchased at the retail store Crabtree and Evelyn and tested according to the protocol of Example 2. A 5% phase separation occurred at 110°F after 22 days and a 9% phase separation occurred at 77°F after 22 days following the protocol of Example 2.

Component list for comparative example:

Macadamia ternifolia seed oil, sodium chloride, calcium stearate, maltodextrin, emulsifying wax NF, isopropyl myristate, butyrospermum park 11, (shea butter), colloidal oatmeal USP, sodium methyl cocoyl taurate,

fragrance (parfum), lavandula angustifolia (lavender) oil, stearic acid, caprylic/capric triglyceride, cyclomethicone, sucrose distearate, cetyl alcohol, cetearyl alcohol, behentrimonium methosulfate, potassium stearate, phenoxyethanol, methylparaben, ethylparaben, propylparaben, butylparaben, isobutylparaben.

Claims

20

1. **A composition which is at least substantially anhydrous and comprises**
 - a) **At least one water immiscible emollient oil in sufficient quantity to provide emolliency to skin ,**
 - b) **At least one emulsifying agent capable of forming an emulsion, in situ, on the skin with the above oil when water is added to the said composition, the said emulsifier in such quantities that the oil is substantially removed from the skin,**
 - c) **A water soluble, at least substantially insoluble in the composition skin exfoliative and/or skin polishing material in sufficient quantities to remove dead cells from the skin during application of the composition and,**
 - d) **At least one wax in sufficient quantity to at least enhance the physical stabilization of the composition.**
2. **The composition in accordance with claim 1, wherein the oil is selected from the group consisting of:**
 - a) **Mineral oils including paraffin oil, petroleum jelly oil**
 - b) **Animal oils including purcellin oil, perhydrosqualene, fish oils and lanolin oil**
 - c) **Vegetable oils including sweet almond oil, palm oil, calophyllum oil, avocado oil, olive oil, castor oil, cereal germ oil, canola oil, sunflower oil, soybean oil and jojoba oil**
 - d) **Silicone oils including dimethylpolysiloxane and cyclomethicone**
 - e) **Esters including butyl myristate, isopropyl myristate, cetyl myristate, isopropyl palmitate, butylstearate, hexadecyl, stearate, isopropyl stearate, octyl stearate, isoceryl stearate, decyl oleate, hexyl laurate di-caprylate of propylene glycol, di-isopropyl adipate**
 - f) **Organic alcohols including oleic alcohol, linoleic alcohol, linolenic alcohol, isostearyl alcohol, octyl dodecanol**
 - g) **Esters derived from lanolic acid including isopropyl lanolate, isocetyl lanolate**

- h) **Free fatty acid including lanoleic, myristic, palmitic, stearic and the like.**
- i) **And mixtures thereof.**
3. **The composition in accordance with claim 1 wherein the emulsifying agent is selected from the group consisting of exemplary emulsifying agents include, without being limited thereto, ethoxylated carboxylic acids, ethoxylated glycerides, glycol esters and derivatives thereof, monoglycerides, polyglyceryl esters, polyhydric alcohol esters and ethers, sorbitan/sorbitol esters, triesters of phosphoric acid, ethoxylated fatty alcohols, propoxylated polyoxyethylene (POE) ethers and the like and mixtures thereof. Particularly preferred are glyceryl stearate, PEG-100 stearate, sorbitan stearate, PEG-40 stearate, steareth-2, steareth-20, steareth-100, polysorbate-20, laureth-1, laureth-23, polysorbate 80, sucrose distearate, glyceryl oleate, and mixtures thereof.**
4. **The composition in accordance with claim 1 wherein the "c" material is selected from the group consisting of salts, sugars, urea, water soluble urea derivatives, polymer and mixtures thereof.**
5. **The composition in accordance with claim 1 wherein the wax is selected from the group consisting of:**
- a) **The mineral waxes including microcrystalline waxes, paraffin, petroleum jelly,**
 - b) **The fossil waxes including ozokerite, montan wax,**
 - c) **Animal waxes including beeswax, spermaceti, lanolin wax, lanolin derivatives such as lanolin alcohols, hydrogenated lanolin, hydroxylated lanolin, acetylated lanolin, fatty acids of lanolin, acetylated lanolin alcohol,**
 - d) **Vegetable waxes including candelilla wax, carnauba wax, sumac wax, cocoa butter wax, and shea butter,**
 - e) **Hydrogenated waxes which are solid at 25°C including hydrogenated castor oil, hydrogenated palm oil, hydrogenated tallow, hydrogenated cocoa oil, hydrogenated soy oil,**
 - f) **Synthetic oils including polyethylene, copolymerized polyethylene waxes,**

- g) *The fatty esters which are solid at 25°C including monomyristate of propylene glycol, myristyl myristate,*
- h) *Silicone oils including methyloctadecane-oxypolysiloxane and poly (dimethylsiloxy) stearoxysiloxane, dimethicone*
- i) *and mixtures thereof.*
- 22

(12) SOLICITUD INTERNACIONAL PUBLICADA BAJO EL TRATADO DE COOPERACIÓN DE PATENTES (PCT)

(19) Organización Mundial de Propiedad
Intelectual
Oficina Internacional



23

(43) Fecha de Publicación Internacional
21 de Octubre de 2004 (21.10.2004)

PCT

(10) Número de Publicación Internacional
WO 2004/089330 A1

(51) Clasificación Internacional de Patentes: A61K 7/50

(21) Numero de Solicitud Internacional:
PCT/US2004/010032

(22) Fecha de Presentación Internacional:
1 de abril de 2004 (01.04.2004)

(25) Lenguaje de entrega: Inglés

(26) Lenguaje de Publicación: Inglés

(30) Datos de la Prioridad:
10/408,123 3 de abril de 2003 (03.04.2003) US

(71) Solicitante (para todos los estados designados excepto US): COLGATE-PALMOLIVE COMPANY [US/US]; 300 Park Avenue, New York, NY 10022 (US)

(72) Inventores; e

(75) Inventores/Solicitantes (solo para US): JOHANSSON, Marie [SE/US]; 22 East Drive, Watchung, New Jersey 07089 (US). GAHIM, Josh [US/US]; 89 Rachel Court, Franklin Park, New Jersey 08823 (US). SOLIMAN, Nadia [US/US]; 53 Race Track Road, East Brunswick, New Jersey 08816 (US).

(74) Agente: MIANO, Rosemary, M.; Colgate-Palmolive Company, 909 River Road, P.O. Box 1343, Placataway, NJ 08855-1343 (US).

(81) Estados Designados (a menos que se indique lo contrario, para todo tipo de protección nacional disponible): AE, AG, AL, AM, AT, AU, AZ,

BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HY, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MAMD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UAM UG, UZ, VN, YU, ZA, ZM, ZW.

(84) Estados Designados (regional): patente ARIPO (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Patente Euroasiática (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Patente europea (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), Patente OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaraciones bajo la Regla 4.17:

— en cuanto al derecho del solicitante para solicitar y que le se conceda una patente (Regla 4.17(II)) para todas las designaciones.

— en cuanto al derecho del solicitante para reivindicar la prioridad de la publicación más temprana (Regla 4.17 (III)) para todas las designaciones.

Publicado:

— con el informe de búsqueda internacional

— antes del vencimiento del límite de tiempo para corregir las reivindicaciones y a ser vuelto a publicar en el evento de recibir las correcciones

Para códigos de dos letras y otras abreviaciones, referirse a las "Notas de guía sobre Códigos y Abreviaturas" que aparecen al comienzo de cada edición de la Gaceta del PCT

(54) Título: COMPOSICION

(57) Resumen: Una composición para la piel la cual es sustancialmente anhidrida y comprende a) al menos un aceite emoliente no miscible en agua en una cantidad suficiente para proporcionar emolientes a la piel, b) al menos un agente emulsificante capaz de formar una emulsión, en el lugar, sobre la piel con el aceite anterior cuando se agrega agua a dicha composición, dicho emulsificante en tal cantidad que el aceite es sustancialmente removido de la piel, c) un material para limpiar y/o exfoliar la piel, soluble en agua, al menos durante la aplicación de la composición y, d) al menos una cera en cantidad suficiente para al menos mejorar la estabilización física de la composición

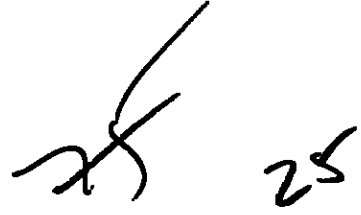
24

COMPOSICIÓNAntecedentes de la Invención

5 Las composiciones acuosas para limpieza de la piel han sido usadas por siglos. Los problemas con ellas son bien conocidos con respecto a remover depósitos en la piel con base de aceite o dejar la piel muy seca. Igualmente, las emulsiones de aceite-en-agua y de agua-en-aceite también
10 tienen varias dificultades. Estos y otros varios problemas han sido descritos en el documento WO 01/85103, publicado el 15 de noviembre de 2001.

Se han realizado intentos previos por solucionar
15 los problemas anteriores de las emulsiones acuosas al emplear limpiadores para la piel anhidros. Los limpiadores para la piel anhidros algunas veces llamados limpiadores sin agua, típicamente contienen altas concentraciones de solventes insolubles en agua, que hacen a estos generalmente efectivos
20 en la remoción de mitades indeseable aceitosas de la piel, pero menos efectivos en la remoción de indeseables solubles en agua. Además, los limpiadores para la piel anhidros típicamente no son elegantes de forma cosmética tendiendo a tener una sensación pesada, grasosa haciéndolos no atractivos
25 al tacto y no son fácilmente removidos de la piel. Generalmente deben ser limpiados con toallas, dejando a la piel sintiéndose grasosa o con la necesidad de lavado con un jabón fuerte dejando a la piel sintiéndose áspera y seca.

30 Varias soluciones a estos problemas han sido propuestas en el arte previo. Por ejemplo, la patente de los Estados Unidos de América número 4,673,526 propone un sistema de tres componentes anhidros diseñado para limpiar la piel que



tiene una sólida materia en partículas de varios polímeros para remover partículas grasas mientras que es esencialmente de múltiples fases. La publicación WO 01/85103, describe un sistema de cuatro componentes sustancialmente anhidro que comprende a) al menos un aceite emoliente cosmético inmiscible en agua, el aceite emoliente cosmético comprende una parte principal de la fórmula; b) al menos un agente de gelificado de aceite que es tanto insoluble en agua e insoluble en agua; c) al menos un agente emulsificante capaz de formar una emulsión, in situ, sobre la piel cuando una pequeña cantidad de agua es añadida gradualmente a la fórmula sustancialmente de anhídrido durante el uso; y d) un material abrasivo, soluble en agua sustancialmente cristalino que es sustancialmente insoluble en el vehículo sustancialmente anhidro de la fórmula.

Sin embargo, cada uno de ellos no es totalmente satisfactorio en al menos un parámetro. Una composición dentro del documento WO 01/85103 tiene de 5 a 8 por ciento por peso de separación de aceite arriba, por ejemplo. Debido a la separación, el obtener la misma distribución del producto con continuos usos y, por tanto, dar equivalentes beneficios es difícil. Adicionalmente, la composición de la patente 4,673,526 está limitada a la limpieza por remoción de sustancias aceitosas sobre la piel sin la adición de cuerpos grasos a la piel. La composición del documento WO 01/85103 deberá removerse de la piel con una relativamente pequeña cantidad de agua, preferiblemente hasta dos partes de la composición aceitosa actual sobre la piel. Estas y otras desventajas pueden resolverse por el descubrimiento y uso de una nueva composición de limpieza de la piel sustancialmente anhídrido.

Los actuales limpiadores de la piel anhidros proporcionan exfoliación por limpieza y/o pulido en un vehículo estético cosmético mientras, al mismo tiempo, deja a la piel excepcionalmente suave, tersa y humedecida. La
5 composición ha tenido al menos mejorada fase de estabilidad, puede pulir y/o exfoliar la piel, y puede ser efectivamente removida de la piel con variadas cantidades de agua.

Síntesis de la Invención

10

De conformidad con la invención, hay una composición que es al menos sustancialmente anhidra y que comprende:

15

a) al menos un aceite emoliente inmiscible en agua en suficiente cantidad para proporcionar emoliencia a la piel,

20

b) al menos un agente emulsificante capaz de formar una emulsión *in situ* sobre la piel con el aceite anterior cuando es añadida agua a la composición,

25

c) material de exfoliación y/o de pulido en suficientes cantidades para remover los desechos de células de la piel durante la aplicación de la composición,

30

d) al menos una cera en suficiente cantidad para al menos mejorar la estabilización física de la composición.

Otro aspecto de la invención es la aplicación de

esta composición a la piel, trabajando la composición en la piel, añadiendo agua a la composición sobre la piel, con trabajo continua en la piel, si se desea, y entonces removiéndola de la piel como una solución o una emulsión acuosa.

10 **Descripción Detallada de la Invención**

Al menos un componente de aceite emoliente inmiscible en agua está presente en la composición, ilustrativos ejemplos de los aceites incluyen:

15

1. Aceites minerales: aceite de parafina, aceite de petróleo.

20

2. Aceites animales: aceite de purcelín, perhidroscualeno, aceites de pescado y aceites de lanolina.

25

3. Aceites vegetales: aceite de almendras dulces, aceite de palma, aceite de *calophyllum*, aceite de aguacate, aceite de oliva, aceite de ricino, aceite de cereal germinado tal como aceite de trigo germinado, aceite de canola, aceite de girasol, aceite de soya y aceite de jojoba.

30

4. Aceites de silicona: dimetilpolisiloxano, ciclometicona.



5. Ésteres: butil miristato, isopropil miristato, cetil miristato, isopropil palmitato, butilestearato, hexadecilo, estearato, isopropil estearato, octil estearato, isoceril estearato, decil oleato, hexil laurato di-caprilato de propilen glicol, di-isopropil adipato.

6. Alcoholes orgánicos: alcohol oléico, alcohol linoléico, alcohol linolénico, alcohol isoestearilo, octil dodecanol.

7. Los ésteres derivados de ácido lanólico: isopropil lanolato, isocetil lanolato.

8. Ácido libre de grasa incluyendo linoeléico, mirístico, palmítico, esteárico y similares.

Además de las clases de los compuestos mencionados antes, uno también puede utilizar como aceites adicionales ilustrativos los acetil glicéridos, los octanoatos y decanoatos de alcoholes, y poli-alcoholes tales como aquellos de glicol y de glicerol, los ricinoleatos de alcoholes y polialcoholes tales como aquellos de cetilo.

El aceite o aceites pueden estar en la composición a un mínimo de alrededor de 15, 20, 25, ó 30 por ciento por peso de la composición. La cantidad máxima de aceite puede ser de hasta alrededor de 85, 75, 65, o de alrededor de 60 por ciento por peso de la composición.

El emulsificante, componente b, es también una importante parte de la composición. La capacidad de

24

emulsificar el aceite, componente a, cuando el agua es añadida, es un significativo efecto de la composición. Esto proporciona una superficie limpia a la piel después de que el agua es añadida pero aún permite a la piel el beneficio del emoliente del aceite. Para facilitar la formación de una emulsión con el primer añadido de agua a la composición en contacto con la piel más de un emulsificante puede emplearse. Por lo tanto, es preferible usar una mezcla de al menos dos emulsificantes, uno que tiene un valor relativamente bajo de balance hidrofílico lipofílico (HLB) preferiblemente de no más de 8, más preferiblemente en el rango de alrededor de 3 a alrededor de 7, y uno que tiene un valor relativamente alto de balance hidrofílico lipofílico (HLB) preferiblemente de al menos de 8, más preferiblemente en el rango de alrededor de 10 a alrededor de 19. El "balance hidrofílico lipofílico" (HLB) se refiere al valor bien conocido calculado del Balance Hidrofílico Lipofílico asignado a los emulsificantes, más comúnmente a emulsificantes no iónicos, con relación a la solubilidad en agua del emulsificante. Una explicación del sistema de balance hidrofílico lipofílico (HLB) es dado en "El Sistema de Balance Hidrofílico Lipofílico (HLB), Una Guía de Ahorro de Tiempo para la Selección de Emulsificantes", por ICI Ameritas, Inc., de Wilmington, Delaware, 19897, 1984.

La composición anhidra para la piel de la presente invención prontamente forma una emulsión cuando la composición para la piel anhidra contacta con agua. Por tanto, esta invención benéficamente retiene la eficacia de la remoción del desecho de las células sin un indeseado residuo aceitoso pero dejando a la piel sensación de suavidad y de humectación.

Los agentes de emulsificación de ejemplo

incluyen, sin estar limitados a, ácidos carboxílicos etoxilatados, glicéridos etoxilatados, glicol éster, y derivados de los mismos, monoglicéridos, poligliceril ésteres, ésteres y éteres de alcohol polihídrico, sorbitan y sorbitol éster, triéster de ácido fosfórico, alcoholes grasos etoxilatados, éter polioxietileno (POE) propoxilatado y similares y mezclas de los mismos. Particularmente preferibles son gliceril estearato, polietilen glicol 100 estearato, sorbitan estearato, polietilen glicol 40 estearato, estearet-2, estearet-20, estearet-100, polisorbato 20, laureth-12, laureth-23, polisorbato 80, diestearato de sucrosa, gliceril oleato, y similares así como de mezclas de los mismos.

Generalmente, al menos alrededor de 1% por peso de la composición es emulsificante, o al menos de alrededor de 2% por peso. Usualmente, también pueden emplearse, de no más de alrededor de 15% por peso de un emulsificante, con base en el peso de la composición, es necesario, sin embargo no más de alrededor de 10% por peso.

20

El componente C proporciona la acción de pulido y/o exfoliado a la piel, ilustrativa ejemplificación de estos materiales son sales, polímeros y similares. Ejemplos de sales incluyen sal del Mar Muerto, sales de metales del grupo IA y IIA y amoniaco incluyendo por ejemplo, cloruro de sodio, cloruro de potasio, nitrato de sodio, sulfato de magnesio, cloruro de amonio, y similares. Adicionalmente materiales tales como azúcares, almidón, urea y derivados de urea soluble en agua tales como alantofina también pueden usarse. Algunos de estos materiales son sustancialmente cristalinos. Uno o más de estos materiales solubles en agua son empleados, preferiblemente que tienen suficiente solubilidad en agua de tal forma que al menos alrededor de 15 partes por peso del

31

material se disolverán en 100 partes por peso de agua a 20°C, también incluyendo al menos alrededor de 25 a 30 partes de solubilidad y que son insolubles en la composición anhidra limpiadora para la piel. El tamaño de la partícula del material debe ser suficientemente grande para servir como un agente de fregado y/o de pulido contra la piel para remover suciedad y desechos celulares, tales como células de la piel muertas ásperas, y aún no tan grandes para raspar o irritar la piel.

10

Aún cuando las sales, urea, almidón y similares pueden ser pulidores de la piel también, es generalmente preferible el usar los polímeros como agentes de pulido aún cuando pueden tener también características de exfoliado. Los Ejemplos de los polímeros incluyen:

15

1. Gomas de xantano, que son heteropolisacáridos, notablemente los productos conocidos bajo los nombres comerciales de KELTROL y de KELTROL F por la CP KELCO Company, así como el producto conocido bajo el nombre comercial de RHODOPOL 23 y RHODIACARE T, vendidos por RHODIA, INC.

20

25

2. El almidón carboximetil, notablemente el producto vendido bajo el nombre comercial de PERFECTAMYL GEL 45 y PERFECTAMYL GEL MB, por la AVEBE Company.

30

3. Los ésteres de celulosa tales como etil hidroxietil celulosa, vendidos bajo el nombre comercial de "BERMOCOLL", por la AKZO

32
32

NOBEL Company.

5 4. Las hidroxialquil celulosas tales como
 hidroxietil celulosa y la hidroxipropilmetil
 celulosa, vendidas bajo el nombre comercial
 de CELLOSIZÉ por AMERCHOL CORPORATION, o
 bajo el nombre comercial de NATROSOL por la
 HERCULES, INC., o bajo el nombre comercial
 de METHOCEL, por la DOW CHEMICAL Company,
10 incluyendo el METHOCEL E50. El almidón
 hidroxipropil notablemente los productos
 vendidos bajo los nombres comerciales de
 ZEINA B860, por la GRAIN PROCESSING
 CORPORATION.

15

 Estos polímeros deseablemente tienen una
granulometría aproximada que permite una acción gentil y no
irritante.

20

 Los materiales del componente C, particularmente
las sales, son generalmente empleadas a un nivel mínimo
suficiente para proporcionar un exfoliante de la piel,
limpiador, de efecto de remoción de desechos de la piel.
Generalmente, al menos alrededor de 1, 2, 3, ó 5% por peso de
25 la composición es empleada, deseablemente al menos alrededor
de 10 ó de 15% por peso. No más de alrededor de 50% por peso
de sales son necesarias con cantidades que no exceden de
alrededor de 40, 30, ó 25% por peso, siendo también benéficas.

30

 Los polímeros del componente C, tales como los
enumerados arriba, además del almidón, azúcar y similares
pueden emplearse en cantidades de al menos de alrededor de 1,
2, 3, ó 5% por peso de la composición, deseablemente de al

23

menos de alrededor de 2% por peso. Generalmente, no más de alrededor de 50% por peso de la composición puede emplearse con cantidades que no exceden de alrededor de 40, 30, 25, ó 20% por peso siendo también benéficas. Pueden usarse las mezclas de los varios componentes, por ejemplo, mezclas de los polímeros y mezclas de las sales (iónicas) y de polímeros.

El componente d es el material de cera. Estos materiales proporcionan la mejorada integridad de la fase a toda la composición. Cuando este componente está ausente, la composición se dispersa en separadas fases, la última fase de aceite se levanta arriba con los materiales más pesados de sal/polímero hundiéndose al fondo. Esto proporciona una apariencia desagradable a la composición, particularmente cuando está en un recipiente en donde la composición es "sacada" del mismo, así como presenta un potencial problema serio de usar una composición más rica en un componente y/o más pobre en un componente cada vez que es empleada la composición. Cuando una cera es usada una sola vez, puede obtenerse al menos esencialmente la fase visualmente homogénea para la composición. Las anteriormente enumeradas desventajas son evitadas o esencialmente reducidas. Con una fase físicamente estable presente, las posibilidades del vehículo de suministro (almacenado) son expandidas sustancialmente. Por ejemplo, la composición puede ser cargada en un recipiente de tal forma como un tubo capaz de deformación en donde una composición uniforme o al menos sustancialmente uniforme puede suministrarse a la piel con la deformación por presión del exterior del recipiente.

30

Los ejemplos ilustrativos de ceras incluyen:

1. Las ceras minerales: ceras microcristalinas,

34

parafina, jalea de petróleo;

2. Las ceras fósiles: ozoquerita, cera montan;

5

3. Ceras animales: cera de abeja, esperma de ballena, cera de lanolina, derivados de lanolina tales como alcoholes de lanolina, lanolina hidrogenada, lanolina hidroxilatada, lanolina acetilatada, ácidos grasos de lanolina, alcohol acetilatado de lanolina;

10

4. Ceras vegetales: cera de candelilla, cera de carnauba, cera de zumaque, cera de mantequilla de cacao y mantequilla de shea;

15

5. Ceras hidrogenadas que son sólidas a 25°C; aceite de ricino hidrogenado, aceite de palma hidrogenado, cebo hidrogenado, aceite de cacao hidrogenado, aceite de soya hidrogenado,

20

6. Aceites sintéticos: polietileno, ceras de polietileno copolimerizado;

25

7. Los ésteres grasos que son sólidos a 25°C: monomiristato de propilen glicol, miristil miristato;

30

8. Aceites de silicona: metil octadecano-oxipolisiloxano y poli(dimetilsiloxi) estearoxisiloxano, dimeticona, ciclometicona.

Entre las ceras, los siguientes compuestos

31

también pueden emplearse: alcohol cetilo, alcohol estearilo, los glicéridos mono-, di-, y tri- que son sólidos a 25°C, monoetenolamida esteárica, colofano y sus derivados tales como abietatos de glicol y de glicerol, los sucroglicéridos. En
5 general, una cera es un material hidrocarbonáceo de cadena larga el cual es por lo menos sustancialmente sólido a 25°C, y es preferiblemente sólido.

La cantidad de cera empleada en la composición
10 es esa cantidad que mejora la fase de estabilización. Generalmente, al menos alrededor de 1, 1.5, ó 2% por peso de la composición puede emplearse, deseablemente al menos alrededor de 2 ó 3% por peso. Usualmente, no más de alrededor de 10 ó 15% por peso de la composición es cera. Mezclas de
15 ceras pueden emplearse.

Con respecto a varios términos empleados en la descripción y las reivindicaciones, "sustancialmente anhidra" significa menos de alrededor de 5% por peso de agua en la
20 composición, preferiblemente de menos de alrededor de 3% por peso de agua, más preferiblemente de menos de alrededor de 1.5% por peso de agua, y más preferiblemente de 0 a alrededor de 1% por peso de agua. Al medir la cantidad de agua, cualquier agua de cristalización de una sal no es contada en
25 lo "sustancialmente anhidro".

La viscosidad de la composición es generalmente aquella de un líquido espeso o gel pero puede alcanzar una consistencia pastosa del tipo de pasta. Generalmente, la
30 viscosidad es de un mínimo de alrededor de 10,000 ó de 15,000, preferiblemente de 20,000 a un máximo de alrededor de 12,000,000, 2,000,000, ó aún de 600,000 centipoises.

36

La viscosidad es medida por técnicas estándar tales como las usadas de un Viscómetro Brookfield. Aquellos con habilidad en el arte usarán la apropiada combinación de huso y velocidad para cubrir el rango de viscosidad a medirse.

- 5 Para menos viscosas muestras, es adecuado el huso Brookfield #5, a 20 revoluciones por minuto, y a 20°C. A altas viscosidades, es usado un accesorio helipath con, por ejemplo, el huso T-E a 2.5 revoluciones por minuto y a 20°C. Por ejemplo, un rango preferible de viscosidad de alrededor de
- 10 500,000 a 1,200,000 centipoises es medido con un viscómetro Brookfield usando un accesorio helipath con un huso T-E a 2.5 revoluciones por minuto y a alrededor de 20°C.

- Las composiciones anhidras para la piel de esta
- 15 invención pueden prepararse por calentamiento junto a los ingredientes de aceite emoliente inmiscible en agua y los ingredientes de emulsificado a una temperatura de alrededor de 70°C con suficiente agitación de mezclado para disolver el emulsificante en el aceite para proporcionar una fase de
- 20 emulsificado en aceite sustancialmente anhidro. La cera es entonces dispersada con agitación de mezclado en la fase de emulsificante en aceite anhidro hasta que una fase espesa, sustancialmente no mucosa comienza a formarse, enfriando la mezcla añadida, si es necesario. El ingrediente de pulido y de
- 25 exfoliado soluble en agua, por ejemplo, sal, azúcar y/o polímero y los ingredientes opcionales, si hay alguno, son entonces añadidos a la composición con suficiente agitación de mezclado para uniformemente dispersar los ingredientes en la composición. Aquellos con habilidad en el arte entenderán que
- 30 el orden de incorporación de los ingredientes y las temperaturas empleadas puede variar con el tipo de ingrediente y la manera de disolución recomendada por el proveedor del material.

3X

Una incorporación preferible para usar las composiciones para la piel sustancialmente anhidras formuladas de conformidad con la invención comprenden los siguientes

5 pasos:

a) Aplicar el limpiador anhidro para la piel a la piel sustancialmente seca (no húmeda), preferiblemente manualmente masajeando la cantidad aplicada sobre la piel para completamente cubrir la piel. La acción de masaje preferiblemente es un masaje o frotado gentil por un período de al menos alrededor de 5 segundos, preferiblemente de alrededor de 5 a alrededor de 30 segundos, para promover la remoción de los residuos de células de la piel y suciedad insoluble en agua, grasosa o aceitosa.

b) Contactar la piel recubierta por el limpiador de la piel con una cantidad de agua suficiente para humedecer la piel recubierta, además continuamente frotar y masajear la piel así humedecida hasta que las partículas del ingrediente abrasivo sustancialmente se disuelvan. La formación de una emulsión *in situ* sobre la piel puede observarse como un cambio en la apariencia del recubrimiento sustancialmente transparente o translúcido a una emulsión líquida sustancialmente turbia (por ejemplo, lechosa a opaca).

38

c) Remover la emulsión resultante de la piel, preferiblemente por enjuagado con agua adicional. El paso intermedio b no necesita seguirse. El efectivo emoliente de la piel y la remoción de la composición puede lograrse al añadir el agua en cantidades pequeñas, medianas o grandes. La piel puede entonces secarse.

5

10

El paso "b" es preferiblemente realizado al humedecer la piel con agua corriente y masajeando mientras se enjuaga la piel recubierta. Alternativamente, una cantidad medida de agua puede aplicarse, si se desea. La disolución de los ingredientes abrasivos puede determinarse durante el paso "b" por un cambio en la característica táctil del limpiador de la piel sobre la piel desde generalmente granuloso a generalmente suave.

15

Se reconoce que en el paso "c" la emulsión también puede limpiarse primero y la piel limpiada entonces enjuagarse. Preferiblemente, las nuevas composiciones para la piel son prontamente y convenientemente removibles de la piel por enjuagado con agua, por tanto eliminando la necesidad por tisú o toallas y evitar los problemas de desecho o de lavado acompañados con el uso de los mismos.

20

25

Las fórmulas para la piel de anhídras preparadas con el componente y los rangos descritos, poseen una combinación sorprendente de efectos benéficos cuando se usan sobre piel sucia. El término "sucio" como se aplica a la piel incluye suciedades de fuentes naturales, tales como desechos celulares presentes sobre la piel, y suciedades de fuentes externas tópicamente aplicadas a la piel, tales como

30

maquillaje, cosméticos, etc., grasas industriales, y suciedad ambiental. Las composiciones para la piel anhidras pueden completamente limpiar la piel de maquillajes y de otros residuos cosméticos inmiscibles en agua. Esas efectivamente remueven varios tipos de suciedades aceitosas y grasosas de la superficie de la piel y residuos difíciles de hacer solubles. Las composiciones para la piel anhidras pueden remover células ásperas y secas de la piel. Además, las composiciones para la piel anhidras pueden suavizar y pulir la superficie de la piel y dejar la piel suave y humectante.

Los siguientes ejemplos además ilustran las composiciones para la piel anhidras de esta invención con específicas incorporaciones, ingredientes y métodos, pero no intencionados para ser limitantes.

Abajo está un ejemplo preferible, junto con varias preferencias; todos los números son aproximados:

20

Ejemplo 1

20-90% de aceite, por ejemplo un aceite vegetal como aceite de canola, preferiblemente de 30-80, más preferiblemente de 50-80.

25

5-25% de ácido esteárico, preferiblemente de 7-20%, más preferiblemente de 8-15%,

30

0.25-5% de glicerol estearato, preferiblemente de 0.5-4%, más preferiblemente de 0.75-3%.

0.25-5% de polietilen glicol 100 estearato, preferiblemente de 0.5-4%, más preferiblemente de 0.75-3%.

40

0.005-5% de sucrosa diestearato, preferiblemente de 0.1-3%, más preferiblemente de 0.2-2%.

5 0-5% de mantequilla shea, preferiblemente de 0.1-4%, más preferiblemente de 0.2-3%.

0.1-5% de alcohol cetil, preferiblemente de 0.3-3%, más preferiblemente de 0.5-2%.

10

0.5-5% de alcohol estearilo, preferiblemente de 0.3-3%, más preferiblemente de 0.5-2%.

15 0.5-5% cera de abeja, preferiblemente de 0.75-4%, más preferiblemente de 1-3%.

0-10% maltodextrina, preferiblemente de 0.5-5%, más preferiblemente de 1-4%.

20 0-10% avena coloidal, preferiblemente de 0.5-8%, más preferiblemente de 1-5%.

5-50% cloruro de sodio o azúcar, preferiblemente de 8-45%, más preferiblemente de 10-40%.

25

0-5% de aceite de silicona.

Ejemplo 2

COMPONENTES	POR CIENTO POR PESO
Aceite de canola	49.30
Ácido esteárico	10.00
PEG100-estearato	1.5
Glicerol estearato	1.5
Sucrosa di-estearato	0.5
Mantequilla shea	0.50
Alcohol cetil	1.6
Alcohol estearilo	0.6

41

Cera de abeja blanca	2.0
Maltodextrina	2.0
Avena coloidal	2.0
Cloruro de sodio	27.80
Fragancia	0.40
Preservativo	0.30
TOTALES	100.00

Los componentes fueron mezclados juntos.

Las muestras fueron colocadas en recipientes de vidrio de 4 onzas y dejadas envejecer a variadas temperaturas. La apariencia de la fase de separación fue examinada para inspección visual. La cantidad de separación fue estimada al dividir el volumen de líquido separado por el volumen total en el recipiente muestra.

10

Ninguna separación en la fase visual ocurrió a 77°F y a 110°F por 49 días.

Ejemplo 3

COMPONENTES	POR CIENTO POR PESO
Aceite de canola	47.40
Cera carnauba	2.00
Acido esteárico	10.00
PEG100-estearato	1.5
Glicerol estearato	1.5
Sucrosa di-estearato	0.5
Mantequilla shea	0.50
Alcohol cetil	1.6
Alcohol estearilo	1.6
Cera de abeja blanca	2.0
Maltodextrina	2.0
Avena coloidal	2.0
Cloruro de sodio	26.95
Polisorbato 80	0.75
Fragancia	0.40
Preservativo	0.30
TOTALES	100.00

15

Siguiendo el protocolo del Ejemplo, no hubo separación en la fase visual a 77°F y a 110°F por 104 días.

20

Ejemplo comparativo - Una fregona de exfoliación anhidra que tiene los componentes de etiqueta que tienen la

42

descripción del componente del documento WO 01/85103, fue adquirido en una tienda al por menor Crabtree & Evelyn y fue probado de conformidad con el protocolo del Ejemplo 2. Una separación de fase de 5% ocurrió a 110°F después de 22 días, y
5 una separación de fase de 9% ocurrió a 77°F después de 22 días siguiendo el protocolo del Ejemplo 2.

La lista de los componentes para el ejemplo comparativo es:

10

Aceite de semilla de macadamia ternifolia, cloruro de sodio, estearato de calcio, maltodextrina, cera emulsificante NF, isopropil miristato, butirospernum park 11, (mantequilla shea), avena coloidal USP, taurato cocoil metil
15 sódico, fragancia (perfume), aceite de *lavandula angustifolia* (lavanda), ácido esteárico, triglicérido caprílico/cáprico, ciclometicona, sucrosa diestearato, alcohol cetil, alcohol cetearil, behentrimonio metosulfato, estearato de potasio, fenoxietanol, metilparaben, etilparaben, propilparaben,
20 butilparaben, isobutilparaben.

REIVINDICACIONES

1. Una composición la cual es por lo menos sustancialmente anhidra y comprende

5

a) al menos un aceite emoliente inmiscible en agua en suficiente cantidad para proporcionar emoliencia a la piel,

10

b) al menos un agente emulsificante capaz de formar una emulsión *in situ* sobre la piel con el aceite anterior cuando es añadida agua a la composición, el emulsificador en tales cantidades que el aceite sea removido

15

c) material de pulido de la piel y/o de exfoliación de la piel soluble en agua, por lo menos insoluble en la composición en

20

d) al menos una cera en suficiente cantidad para al menos mejorar la estabilización física de la composición.

25

2. La composición tal y como se reivindica en la cláusula 1, caracterizada porque el aceite es seleccionado del

30

a) Aceites minerales incluyendo aceite de parafina, aceite de petróleo.

44

b) Aceites animales incluyendo aceite de purcelín, perhidroscualeno, aceites de pescado y aceites de lanolina.

5

c) Aceites vegetales incluyendo aceite de almendras dulces, aceite de palma, aceite de *calophyllum*, aceite de aguacate, aceite de oliva, aceite de ricino, aceite de cereal germinado, aceite de canola, aceite de girasol, aceite de soya y aceite de jojoba.

10

d) Aceites de silicona incluyendo dimetilpolisiloxano y ciclometicona.

15

e) Ésteres incluyendo butil miristato, isopropil miristato, cetil miristato, isopropil palmitato, butilestearato, hexadecilo, estearato, isopropil estearato, octil estearato, isoceril estearato, decil oleato, hexil laurato di-caprilato de propilen glicol, di-isopropil adipato.

20

f) Alcoholes orgánicos incluyendo alcohol oléico, alcohol linoléico, alcohol linolénico, alcohol isoestearilo, octil dodecanol.

25

g) Ésteres derivados de ácido lanólico incluyendo isopropil lanolato, isocetil lanolato.

30

41

h) Ácido libre de grasa incluyendo linoeléico, mirístico, palmítico, esteárico y similares.

i) Y mezclas de los mismos.

5

3. La composición tal y como se reivindica en la cláusula 1, caracterizada porque el agente emulsificante es seleccionado del grupo que consiste de agentes emulsificantes de ejemplo incluyendo, sin estar limitados a los mismos, 10 ácidos carboxílicos etoxilatados, glicéridos etoxilatados, glicol ésteres y derivados de los mismos, monoglicéridos, poligliceril ésteres, ésteres y éteres de alcohol polihídrico, sorbitan/sorbitol ésteres, triésteres de ácido fosfórico, alcoholes grasos etoxilatados, éteres polioxietileno (POE) 15 propoxilatados y similares y mezclas de los mismos. Particularmente preferibles son gliceril estearato, polietilen glicol 100 estearato, sorbitan estearato, polietilen glicol 40 estearato, estearet-2, estearet-20, estearet-100, polisorbato 20, laureth-1, laureth-23, polisorbato 80, diestearato de 20 sucrosa, gliceril oleato, y mezclas de los mismos.

4. La composición tal y como se reivindica en la cláusula 1, caracterizadas porque el material "c" es seleccionado del grupo que consiste de sales, azúcares, urea, 25 derivados de urea solubles en agua, polímero y mezclas de los mismos.

5. La composición tal y como se reivindica en la cláusula 1 caracterizada porque la cera es seleccionada del 30 grupo que consiste de:

a) Las ceras minerales incluyendo ceras microcristalinas, parafina, jalea de

46

petróleo;

b) Las ceras fósiles incluyendo ozoquerita, cera montan;

5

c) Ceras animales incluyendo cera de abeja, esperma de ballena, cera de lanolina, derivados de lanolina tales como alcoholes de lanolina, lanolina hidrogenada, lanolina hidroxilatada, lanolina acetilatada, ácidos grasos de lanolina, alcohol acetilatado de lanolina;

10

d) Ceras vegetales incluyendo cera de candelilla, cera de carnauba, cera de zumaque, cera de mantequilla de cacao y mantequilla de shea;

15

e) Ceras hidrogenadas que son sólidas a 25°C incluyendo aceite de ricino hidrogenado, aceite de palma hidrogenado, cebo hidrogenado, aceite de cacao hidrogenado, aceite de soya hidrogenado,

20

f) Aceites sintéticos incluyendo polietileno, ceras de polietileno copolimerizado;

25

g) Los ésteres grasos que son sólidos a 25°C incluyendo monomiristato de propilen glicol, miristil miristato;

30

h) Aceites de silicona: metil octadecano-oxipolisiloxano y poli(dimetilsiloxi)

47

estearoxisiloxano, dimeticona

i) Y mezclas de los mismos.



R E S U M E N

Una composición para la piel la cual es por lo menos sustancialmente anhidra y comprende a) al menos un
5 aceite emoliente inmiscible en agua en suficiente cantidad para proporcionar emoliencia a la piel, b) al menos un agente emulsificante capaz de formar una emulsión, *in situ*, sobre la piel con el aceite anterior cuando es añadida agua a la composición, dicho emulsificador en tales cantidades que el
10 aceite es removido sustancialmente de la piel, c) un material de exfoliación de la piel y/o de pulido de la piel en suficientes cantidades para remover las células muertas de la piel durante la aplicación de la composición, y d) al menos una cera en suficiente cantidad para al menos mejorar la
15 estabilización física de la composición.

TRANSMITTAL LETTER TO THE UNITED STATES RECEIVING OFFICE

Date	01 April 2004
International Application No.	
Attorney Docket No.	7137-00

I. Certification under 37 CFR 1.10 (if applicable)

EV 380775182 US
Express Mail mailing number

01 April 2004
Date of Deposit

I hereby certify that the application/correspondence attached hereto is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Assistant Commissioner for Patents, Washington, D.C. 20231.

<i>Carol Stanley</i>
Signature of person mailing correspondence

Carol Stanley
Typed or printed name of person mailing correspondence

II. ☒ New International Application

TITLE	COMPOSITION

Earliest priority date (Day/Month/Year)
03 April 2003

SCREENING DISCLOSURE INFORMATION: In order to assist in screening the accompanying international application for purposes of determining whether a license for foreign transmittal should and could be granted and for other purposes, the following information is supplied. (Note: check as many boxes as apply):

- A. ☐ The invention disclosed was not made in the United States.
- B. ☐ There is no prior U.S. application relating to this invention.
- C. ☒ The following prior U.S. application(s) contain subject matter which is related to the invention disclosed in the attached international application. (NOTE: priority to these applications may or may not be claimed on form PCT/RO/101 (Request) and this listing does not constitute a claim for priority).

application no.	US98 10/406,123	filed on	03 April 2003
application no.		filed on	

- D. ☐ The present international application ☐ is identical ☐ contains less subject matter than that found in the prior U.S. application(s) identified in paragraph C.
- E. ☐ The present international application ☐ contains additional subject matter not found in the prior U.S. application(s) identified in paragraph C. above. The additional subject matter is found on pages and ☐ DOES NOT ALTER ☐ MIGHT BE CONSIDERED TO ALTER the general nature of the invention in a manner which would require the U.S. application to have been made available for inspection by the appropriate defense agencies under 35 U.S.C. 181 and 37 CFR 5.1. See 37 CFR 5.15

III. ☐ A Response to an Invitation from the RO/US. The following document(s) is (are) enclosed:

- A. ☐ A Request for An Extension of Time to File a Response
- B. ☐ A Power of Attorney (General or Regular)
- C. ☐ Replacement pages:

pages		of the request (PCT/RO/101)	pages		of the figures
pages		of the description	pages		of the abstract
pages		of the claims			

- D. ☐ Submission of Priority Documents

Priority document		Priority document	
-------------------	--	-------------------	--

- E. ☐ Fees as specified on attached Fee Calculation sheet form PCT/RO/101 annex

IV. ☐ A Request for Rectification under PCT 91 ☐ A Petition ☐ A Sequence Listing Diskette

V. ☐ Other (please specify):

The person signing this form is the:	☐ Applicant	Rosemary M. Milano
	☒ Attorney/Agent (Reg. No.) 29,674	Typed name of signer
	☐ Common Representative	Signature

EV360775182US

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US2004/010032

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K7/50

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 7 A61K

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

Electronic data base consulted during the international search (name of data base and, where practical, 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.
X	US 6 013 270 A (FOWLER TIMOTHY JOHN ET AL) 11 January 2000 (2000-01-11) the whole document	1-5
X	US 3 277 013 A (GIANLADIS JAMES L) 4 October 1966 (1966-10-04) the whole document	1-5
X	US 3 645 904 A (BEACH WILLIS J) 29 February 1972 (1972-02-29) column 1, line 42 - line 60; examples 4-13 column 9, line 25 - line 32; claim 2	1-5
X	US 4 035 514 A (DAVIS RONALD IVEY) 12 July 1977 (1977-07-12) column 1, line 7 - line 13 column 2, line 22 - line 31; claim 1; examples	1-3,5
	-/-	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *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)
- *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

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

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

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.

S document member of the same patent family

Date of the actual completion of the international search

25 August 2004

Date of mailing of the international search report

02/09/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5618 Patentplan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Giese, H-H

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 155 870 A (JORGENSEN JENS L) 22 May 1979 (1979-05-22) column 1, line 5 - line 60; claim 1	1-5
A	US 4 673 526 A (ZABOTTO ARLETTE ET AL) 16 June 1987 (1987-06-16) the whole document	1

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US2004/010032

52

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6013270	A	11-01-2000	AT 235319 T	15-04-2003
			AU 751380 B2	15-08-2002
			AU 3047399 A	08-11-1999
			BR 9909784 A	30-01-2001
			CA 2328452 A1	28-10-1999
			CN 1298326 T	06-06-2001
			DE 69906265 D1	30-04-2003
			DE 69906265 T2	29-01-2004
			EP 1071515 A1	31-01-2001
			ES 2192838 T3	16-10-2003
			WO 9954053 A1	28-10-1999
			JP 2002512119 T	23-04-2002
US 3277013	A	04-10-1966	FR 1206622 A	10-02-1960
			GB 842866 A	27-07-1960
US 3645904	A	29-02-1972	NONE	
US 4035514	A	12-07-1977	JP 1074561 C	30-11-1981
			JP 52100505 A	23-08-1977
			JP 56018147 B	27-04-1981
US 4155870	A	22-05-1979	NONE	
US 4673526	A	16-06-1987	FR 2564318 A1	22-11-1985
			BE 902424 A1	14-11-1985
			CA 1271425 A1	10-07-1990
			CH 664083 A5	15-02-1988
			DE 3517385 A1	21-11-1985
			GB 2158839 A ,B	20-11-1985
			IT 1183617 B	22-10-1987
			JP 60248608 A	09-12-1985

PATENT COOPERATION TREATY

From the RECEIVING OFFICE

PCT

53

To:
ROSEMARY M. MIANO
COLGATE-PALMOLIVE COMPANY
909 RIVER ROAD
P.O. BOX 1343
PISCATAWAY, NEW JERSEY 08855

NOTIFICATION OF THE INTERNATIONAL APPLICATION NUMBER AND OF THE INTERNATIONAL FILING DATE

(PCT Rule 20.5(c))

Date of mailing (day/month/year) 04 Jun 2004	
Applicant's or agent's file reference 7137-00	IMPORTANT NOTIFICATION
International application No. PCT/US2004/010032	International filing date (day/month/year) 01 Apr 2004
Priority date (day/month/year) 03 Apr 2003	
Applicant COLGATE-PALMOLIVE COMPANY	
Title of the invention COMPOSITION	

1. The applicant is hereby notified that the international application has been accorded the international application number and the international filing date indicated above.

2. The applicant is further notified that the record copy of the international application:

- 04 Jun 2004
- ☒ was transmitted to the International Bureau on _____
- ☐ has not yet been transmitted to the International Bureau for the reason indicated below and a copy of this notification has been sent to the International Bureau*:
- ☐ because the necessary national security clearance has not yet been obtained.
- ☐ because (reason to be specified): _____

* The International Bureau monitors the transmittal of the record copy by the receiving Office and will notify the applicant (with Form PCT/IB/301) of its receipt. Should the record copy not have been received by the expiration of 14 months from the priority date, the International Bureau will notify the applicant (Rule 22.1(c)).

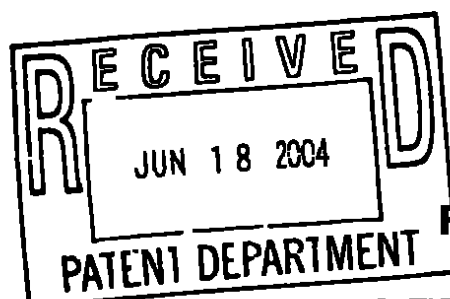
3. FOREIGN TRANSMITTAL LICENSE INFORMATION

Completed by: BF

- ☐ Additional license for foreign transmittal not required. This subject matter is covered by a license already granted or the equivalent U.S. national application. Refer to that license for information concerning its scope.
- ☐ License for foreign transmittal not required. 37 CFR 5.11(e)(1) or 37 CFR 5.11(e)(2). However, a license may be required for additional subject matter. See 37 CFR 5.15(b).
- ☒ Foreign transmittal license granted. 35 U.S.C. 184; 37 CFR 5.11 on 01 Jun 2004 :
(date)
- ☒ 37 CFR 5.15(a) ☐ 37 CFR 5.15(b)

Name and mailing address of the receiving Office
Mail Stop PCT, Commissioner for Patents
P.O. Box 1450, Alexandria, VA 22313-1450
Facsimile No. 703-305-3230

Authorized officer
Barbara Fridie
Telephone No. 703-3053747



PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

To:

MIANO, Rosemary, M.
Colgate-Palmolive Company
909 River Road
P.O. Box 1343
Piscataway, New Jersey 08855
United States of America

**NOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT**

(PCT Administrative Instructions, Section 411)

Date of mailing (day/month/year) 09 June 2004 (09.06.2004)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 7137-00	
International application No. PCT/US2004/010032	
International publication date (day/month/year) Not yet published	
International filing date (day/month/year) 01 April 2004 (01.04.2004)	Priority date (day/month/year) 03 April 2003 (03.04.2003)
Applicant COLGATE-PALMOLIVE COMPANY et al	

- By means of this Form, which replaces any previously issued notification concerning submission or transmittal of priority documents, the applicant is hereby notified of the date of receipt by the International Bureau of the priority document(s) relating to all earlier application(s) whose priority is claimed. Unless otherwise indicated by the letters "NR", in the right-hand column or by an asterisk appearing next to a date of receipt, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- (If applicable) The letters "NR" appearing in the right-hand column denote a priority document which, on the date of mailing of this Form, had not yet been received by the International Bureau under Rule 17.1(a) or (b). Where, under Rule 17.1(a), the priority document must be submitted by the applicant to the receiving Office or the International Bureau, but the applicant fails to submit the priority document within the applicable time limit under that Rule, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- (If applicable) An asterisk(*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b) (the priority document was received after the time limit prescribed in Rule 17.1(a) or the request to prepare and transmit the priority document was submitted to the receiving Office after the applicable time limit under Rule 17.1(b)). Even though the priority document was not furnished in compliance with Rule 17.1(a) or (b), the International Bureau will nevertheless transmit a copy of the document to the designated Offices, for their consideration. In case such a copy is not accepted by the designated Office as priority document, Rule 17.1(c) provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

Priority date	Priority application No.	Country or regional Office or PCT receiving Office	Date of receipt of priority document
03 April 2003 (03.04.2003)	10/406,123	US	09 June 2004 (09.06.2004)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 338.70.80	Authorized officer Evelyne DURAND Telephone No. (41-22) 338 8236
--	--

PATENT COOPERATION TREATY

15/13/04
30
55

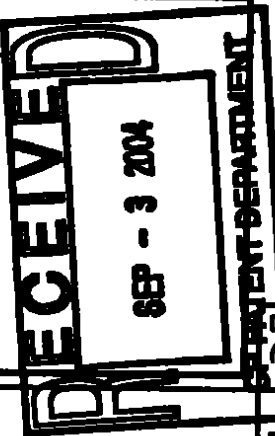
From the INTERNATIONAL SEARCHING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

To:
COLGATE-PALMOLIVE COMPANY
P.O. Box 1343
Attn. Miano, Rosemary M.
909 River Road
Piscataway, NJ 08855
UNITED STATES OF AMERICA

10/406123



(PCT Rule 44.1)

Date of mailing
(day/month/year)

02/09/2004

Applicant's or agent's file reference
7137-00

FOR FURTHER ACTION

See paragraphs 1 and 4 below

International application No.
PCT/US2004/010032

International filing date
(day/month/year)

01/04/2004

Applicant

COLGATE-PALMOLIVE COMPANY

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
 - ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

Shortly after the expiration of 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later); otherwise, the applicant must, within 30 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the PCT Applicant's Guide, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority
European Patent Office, P.B. 6818 Patentlaan 2
NL-2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 65 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Jette Christensen

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 7137-00	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2004/010032	International filing date (day/month/year) 01/04/2004	(Earliest) Priority Date (day/month/year) 03/04/2003
Applicant COLGATE-PALMOLIVE COMPANY		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 36.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US2004/020032A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K7/50

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 7 A61K

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

Electronic data base consulted during the International search (name of data base and, where practical, 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.
X	US 6 013 270 A (FOWLER TIMOTHY JOHN ET AL) 11 January 2000 (2000-01-11) the whole document	1-5
X	US 3 277 013 A (GIANLADIS JAMES L) 4 October 1966 (1966-10-04) the whole document	1-5
X	US 3 645 904 A (BEACH WILLIS J) 29 February 1972 (1972-02-29) column 1, line 42 - line 60; examples 4-13 column 9, line 25 - line 32; claim 2	1-5
X	US 4 035 514 A (DAVIS RONALD IVEY) 12 July 1977 (1977-07-12) column 1, line 7 - line 13 column 2, line 22 - line 31; claim 1; examples	1-3,5
	-/-	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"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)

"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

"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

"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

"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.

"Z" document member of the same patent family

Date of the actual completion of the international search

25 August 2004

Date of mailing of the international search report

02/09/2004

Name and mailing address of the ISA

European Patent Office, P.O. 6816 Patentkan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Giese, H-H

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US2004/018032

58

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 155 870 A (JORGENSEN JENS L) 22 May 1979 (1979-05-22) column 1, line 5 - line 60; claim 1	1-5
A	✓ US 4 673 526 A (ZABOTTO ARLETTE ET AL) 16 June 1987 (1987-06-16) the whole document	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

PCT/US2004/020032

59

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6013270	A	11-01-2000	AT 235319 T	15-04-2003
			AU 751380 B2	15-08-2002
			AU 3047399 A	08-11-1999
			BR 9909784 A	30-01-2001
			CA 2328452 A1	28-10-1999
			CN 1298326 T	06-06-2001
			DE 69906265 D1	30-04-2003
			DE 69906265 T2	29-01-2004
			EP 1071515 A1	31-01-2001
			ES 2192838 T3	16-10-2003
			WO 9954053 A1	28-10-1999
			JP 2002512119 T	23-04-2002
US 3277013	A	04-10-1966	FR 1206622 A	10-02-1960
			GB 842866 A	27-07-1960
US 3645904	A	29-02-1972	NONE	
US 4035514	A	12-07-1977	JP 1074561 C	30-11-1981
			JP 52100505 A	23-08-1977
			JP 56018147 B	27-04-1981
US 4155870	A	22-05-1979	NONE	
US 4673526	A	16-06-1987	FR 2564318 A1	22-11-1985
			BE 902424 A1	14-11-1985
			CA 1271425 A1	10-07-1990
			CH 664083 A5	15-02-1988
			DE 3517385 A1	21-11-1985
			GB 2158839 A , B	20-11-1985
			IT 1183617 B	22-10-1987
			JP 60248608 A	09-12-1985

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

60
PCT

To:

see form PCT/ISA220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2004/010032

International filing date (day/month/year)
01.04.2004

Priority date (day/month/year)
03.04.2003

International Patent Classification (IPC) or both national classification and IPC
A61K7/50

Applicant
COLGATE-PALMOLIVE COMPANY

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 68.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA220.

3. For further details, see notes to Form PCT/ISA220.

Name and mailing address of the ISA:



European Patent Office
D-80289 Munich
Tel. +49 89 2369 - 0 Tx: 523656 epmu d
Fax: +49 89 2369 - 4465

Authorized Officer

Giese, H-H
Telephone No. +49 89 2369-8488



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

61
International application No.
PCT/US2004/010032

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/010032

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-5
Inventive step (IS)	Yes: Claims	
	No: Claims	1-5
Industrial applicability (IA)	Yes: Claims	1-5
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V.

1. The following document is referred to in this communication:

D1 : US 6 013 270 A

D2 : US 3 277 013 A

D3 : US 3 645 904 A

D4 : US 4 035 514 A

2. INDEPENDENT CLAIM 1

2.1 Novelty (Article 33(2) PCT)

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new over D1, D2 or D3 in the sense of Article 33(2) PCT.

Document D1 discloses an anhydrous skin cleansing composition comprising (a) an oily phase having an oil and a wax, (b) an emulsifying agent and (c) a water-soluble polymeric particulate abrasive substance (see citations in the international search report).

Document D2 discloses a waterless skin cleaning composition comprising (a) an emollient, (b) an emulsifier, (c) finely divided particles of a resilient plastic material and (d) lanolin which is a wax due to its melting point between 36 and 41 °C (see citations in the international search report).

Document D3 discloses addresses a viscous cream or paste comprising (a) a mineral oil, (b) an emulsifying agent, (c) a synthetic hydrophilic acid polymer colloid and in case of a waterless skin cleaner (d) lanolin wax (melting point 36-41 °C) (see citations in the international search report).

Document D4 discloses a lotion or creamy skin cleaner comprising (a) mineral oil, (b) sorbitan trioleate, (c) glass bubbles and (d) paraffin wax with a water content of at least 38.2% (see citations in the international search report).

2.2. Inventive Step (Article 33(3) PCT)

The problem to be solved in present application was to prevent phase separation (stability) and to provide the skin with fat bodies (see page 2, lines 35-41). The solution proposed by the present application is a composition according to claim 1 which provides skin cleansing properties and which leaves the skin soft, smooth and moisturized (see claim 1 and page 2, lines 47-51).

2.3. The technical problems to be solved in the present application are well known problems (stability and improved care properties) in the field of cosmetics and in particular of skin care compositions irrespective of the cited documents US 4 673 526 or WO 01/85103. Consequently the skilled man in the art put in front of the problems to be solved would consider all prior art documents which describe skin cleaning compositions.

2.4. Furthermore, the alleged technical problem as defined in the present application appears to be solved by the disclosure in documents D1, D2 or D3. Although D4 describes a higher water content the present application also does not make credible that a specific advantage has been obtained with respect to the low water content.

3 DEPENDENT CLAIMS 2-5

Dependent claims 2-5 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

Re Item VII Certain defects in the International application

1. As required by Rule 5.1(a)(ii) PCT, it is appropriate to identify documents D1 to D4 and to discuss the relevant background art disclosed therein briefly (see also the Guidelines II, 4.4 PCT).
7. As required by Rule 10.1(a)(b)(d)(e) PCT and the Guidelines II, 4.15. PCT, it is appropriate to express the units "F" on pages 12 and 13 in the commonly known SI-units (the original specific values remaining alongside the SI-units).

Re Item VIII Certain observations on the International application

1. The term "at least substantially anhydrous" and "at least substantially insoluble" in claim 1 is not clear (Article 6 PCT) but becomes clear in view of page 8, lines 233-238. The Applicant is requested to clarify the language of claim 1.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2004/010032

2. Claim 1 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not defined. The claim attempts to define the amount of essential ingredients in terms of the result to be achieved: "in sufficient quantity to provide ..." or "capable of forming ..." or "in such quantities that..." or "in sufficient quantities to remove ..." or "in sufficient quantity to ... enhance ...". Such a definition is only allowable under the conditions elaborated in the Guidelines III, 4.7 PCT or should be replaced with their respective weight ranges as given in the description.

IN THE INTERNATIONAL PATENT OFFICE

Applicant: Colgate-Palmolive Company

Inventors: JOHANSSON, Marie; GHAIM, Josh; SOLIMAN, Nadia

International Application No.: PCT/US2004/010032 (WO 2004/089330)

International Filing Date: 1 April 2004

Priority Date: 3 April 2003
(based on U.S. Serial No. 10/406,123)

Authorized Officer: GIESE, H-H

Tel.: (+49 89 2399-8488)
Fax: (+49 89 2399-4465)

Title: Composition

VIA FACSIMILE TO (+49 89 2399-4465)

RESPONSE TO WRITTEN OPINION
OF THE INTERNATIONAL SEARCHING AUTHORITY

February 2, 2005

International Searching Authority
European Patent Office
D-80298 Munich
GERMANY

Dear Sir:

This paper responds to the Written Opinion of November 3, 2004.

Claim Amendments

Claim 1 has been amended to incorporate component concentration ranges from the description to clarify the scope of the claimed composition and reduce reliance on the result achieved for defining the inventive composition. Support for the substantive amendments to claim 1 may be found in the description at page 4, lines 5-7; page 5, lines 4-7 and 15-23; page 6, lines 17-29; and page 8, lines 6-16. In addition, minor typographical errors have been corrected.

Claim 2 has been amended to correct minor typographical errors.

Claim 3 has been amended to correct minor typographical errors.

Claim 4 has been amended to recited more explicitly the "c" material of claim 1 and to correct minor typographical errors.

Claim 5 has been amended to correct minor typographical errors.

Claims 6 and 7 are new. Support for these new claims may be found in the description at page 4, lines 8-23, with regard to the composition of the recited emulsifier.

Specification Amendments

A brief discussion of references D1-D4 has been added beginning at page 2, line 15, as reflected on the substitute sheets comprising pages 2 and 2a provided herewith.

The English unit references on pages 12 and 13 have been moved into parenthetical expressions associated with the corresponding S.I. unit quantities for

both temperature and liquid volume as reflected on the substitute sheets comprising pages 12 and 13 provided herewith.

REMARKS

Claims 1-5 and new claims 6 and 7 are pending in this application (WO 2004/089330). Claims 1-5 have been amended as noted above. New claims 6 and 7 have been added to address specific formulations of the claimed composition. Attached hereto are both a marked-up (redline) version of the claims with markings indicating the amendments to the claims and a clean version of the claims that incorporate each of the indicated amendments.

The following remarks relate to paragraphs 2.1 and 2.2 of the Written Opinion, as indicated below.

Paragraph 2.1 D1 - U.S. Patent No. 6,013,270 A

The Written Opinion indicates that D1 discloses "an anhydrous skin cleansing composition comprising (a) an oily phase having an oil and a wax, (b) an emulsifying agent and (c) a water-soluble polymeric particulate abrasive substance." With respect to those portions of D1 that are alleged to disclose such a composition, the only guidance provided in the Written Opinion was "see citations in the international search report." The Applicant respectfully notes, however, that D1 is a fairly lengthy reference and further the international search report simply cites "the whole document" and thus provides no meaningful guidance as to which portions, if any, relied upon in the Written Opinion for teaching the claimed composition.

The Applicant respectfully maintain that D1 relates to skin conditioning compositions, *i.e.*, compositions which are applied to and are intended to remain on the skin as opposed to a skin cleansing composition as recited in the Applicant's claims. In that regard, D1 indicates col. 1, lines 3-14 in relevant part:

The present invention relates to the field of *conditioning skin care compositions* and dispensers therefor. More particularly, this invention relates to a skin care kit comprising a pump dispenser and a composition useful for regulating skin condition (especially human skin, more especially human facial skin), including *lubricating* the skin, increasing the smoothness and suppleness of the skin, *preventing or relieving dryness of* the skin, *hydrating* the skin, and/or protecting the skin regulating visible and/or tactile discontinuities in skin, *e.g.*, visible and/or tactile discontinuities in skin texture, more especially discontinuities associated with skin aging. [(Emphasis added.)]

Accordingly, there is no teaching or suggestion in D1 of a "skin cleansing" composition.

Further, the composition(s) of D1 include the presence of 60-99.99% water as a hydrophilic diluent; whereas, the Applicant's claims recite a composition that includes no more than 5 wt % water. To corroborate this point of distinction, the Applicant directs the Examiner's attention to the following relevant text of D1, found at col. 2, lines 9-38; and col. 9, lines 65-67:

The skin care composition comprises an emulsion having: 1) at least one hydrophobic phase comprising an oil and from about 0.1% to about 20% of a light emollient; 2) *at least one hydrophilic phase comprising water*; and 3) from about 0.1% to about 5% of an emulsifier having an HLB of at least 6. . . . Preferably, the skin care composition of the present invention comprises:

1) an *oil-in-water emulsion* with:

a) at least one hydrophobic phase comprising an oil and from about 0.15% to about 10% of a light emollient

* * *

b) *at least one hydrophilic phase comprising water,*

c) from about 0.1% to about 5% of an emulsifier

* * *

d) from about 0.1% to about 5%, by weight of the composition, of a polymeric thickening agent;

* * *

Water is a preferred diluent. The composition preferably comprises *from about 60% to about 99.99%* of the hydrophilic diluent.

In view of the foregoing, the Applicant respectfully submits that D1 does not teach or suggest to the skilled artisan a "skin cleansing" composition that is substantially anhydrous, *i.e.*, includes *no more than 5 wt % water*, as recited in the Applicant's claims.

For the foregoing reasons, Applicant respectfully submits that the D1 reference does not destroy the novelty of claims 1-5 as amended or newly presented claims 6 and 7 which depend from claim 1.

Paragraph 2.1 D2 = U.S. Patent No. 3,277,013 A

The Written Opinion indicates that D2 discloses "a waterless skin cleaning composition comprising (a) an emollient, (b) an emulsifier, (c) finely divided particles of a resilient plastic material and (d) lanolin." With respect to those portions of D2 that are alleged to disclose such a composition, the only guidance provided in the Written Opinion is "see citations in the international search report." The Applicant respectfully notes, however, that the international search report simply cites "the whole document" and thus provides no meaningful guidance as to which portions, if any, the Written Opinion is relying upon for allegedly teaching the claimed composition.

The Applicant respectfully contends that D2 is directed to a "skin cleaner emulsion" in which the cleaning power is achieved by "imparting active emulsifying power to bland, cosmetic-type mineral oil." Col. 1, lines 64-70. The Applicant respectfully contends, however, that no portion of D2 has been located that could fairly be said to provide a teaching or suggestion for one skilled in the art to include "a skin exfoliative and/or skin polishing particulate material present at a concentration of from 1 wt % to 50 wt % and having a water solubility of at least 15 parts in 100 parts of water at 20° C" as recited in Applicant's claim 1 at part (e) thereof. Further, to reiterate in part, the Applicant respectfully suggests that *even if* support for "finely divided particles of resilient plastic material" were present in D2, there is no suggestion that such particles would be sufficiently soluble in water to teach or suggest a "water solubility of at least 15 parts by weight of the material in 100 parts of water at 20°C" as recited in claim 1.

For the foregoing reasons, Applicant respectfully submits that the D2 reference does not destroy the novelty of claims 1-5 as amended or newly presented claims 6 and 7 which depend from claim 1.

Paragraph 2.1 D3 - U.S. Patent No. 3,645,904 A

The Written Opinion indicates that D3 discloses (or addresses) "a viscous cream or paste comprising (a) a mineral oil, (b) an emulsifying agent, (c) a synthetic hydrophilic acid polymer colloid and in case of a waterless skin cleaner (d) lanolin wax."

The Applicant respectfully contends that D3 is directed to a "skin cleaner of the type having plastic synthetic materials in a fine state of comminution ... so as to impart a scrubbing or mechanical detergent action thereto." Col. 1, lines 11-14. The Applicant respectfully contends, however, that no portion of D3 suggests that these "suitable plastic resin materials" such as "polyethylene, polypropylene and polystyrene" able to "pass a 40 mesh screen" are particles that are sufficiently soluble in water to teach or suggest a "water solubility of at least 15 parts by weight of the material in 100 parts of water at 20°C" as recited in Applicant's claim 1. Indeed, the Applicant respectfully contends that the materials used in D3 are water *insoluble* abrasive particles.

Further, the Applicant respectfully notes that the exemplary compositions of the "skin cleaners," whether or not characterized as "waterless," provided in Examples I-VIII of D3 include *between 29.42 and 74.1 parts water*, and cannot, therefore, be fairly characterized as teaching or suggesting to one skilled in the art a

composition that is substantially anhydrous, *i.e.*, includes no more than 5 wt % water, as recited in Applicant's claim 1 as amended.

For the foregoing reasons, Applicant respectfully submits that the D3 reference does not destroy the novelty of claims 1-5 as amended or newly presented claims 6 and 7 which depend from claim 1.

Paragraph 2.1 D4 = U.S. Patent No. 4,035,514 A

The Written Opinion indicates that D4 discloses "a lotion or creamy skin cleaner comprising (a) mineral oil, (b) sorbitan trioleate, (c) glass bubbles and (d) paraffin wax with a water content of at least 38.2%." Clearly, a water content of "at least 38.2%" allegedly recited in D4 exceeds the limit of "not more than 5 wt %" recited in Applicant's claim 1, as amended. Also, there are no "glass bubbles" disclosed in D4.

The Applicant respectfully contends that D4 is directed to a "petrolatum composition which can be easily dispersed in water without the use of additional soaps or dispersing agents." Col. 1, lines 7-9. As recited above, no portion of D4 suggests the inclusion of "glass bubbles," or, indeed, any component that can fairly be characterized as the "skin exfoliative and/or skin polishing particulate material" as recited in claim 1 as amended.

Moreover, the Applicant respectfully submits that even if support for such "glass bubbles" were present in D4, such "glass bubbles" would be water insoluble. As such, D4 fails to teach or suggest a "water solubility of at least 15 parts by weight of the material in 100 parts of water at 20°C" as recited in Applicant's claim 1.

Indeed, the Applicant respectfully contends that a skilled artisan would conclude that "glass bubbles" are *not* water soluble; whereas Applicant's particulate material is water soluble as recited in claim 1.

Further, the Applicant respectfully notes that the exemplary "blends" recited in Examples 1-3 of D4 do not include and do not suggest the addition of "skin exfoliative and/or skin polishing particulate material" as recited in claim 1.

For the foregoing reasons, Applicant respectfully submits that the D4 reference does not destroy the novelty of claims 1-5 as amended or newly presented claims 6 and 7 which depend from claim 1.

Paragraphs 2.2-2.4 Inventive Step

The Written Opinion asserts that the problem to be solved is "prevent[ing] phase separation (stability) and to provide the skin with fat bodies (see page 2, lines 35-41)." That assertion is incorrect because Applicant's claims recite the presence of the "skin exfoliative and/or skin polishing particulate material" that has a recited water solubility of "15 parts ... in 100 parts water." This particulate material in the claimed composition provides a scrubbing, polishing and/or exfoliating action during the initial waterless application of the composition to soiled skin for removing oily, greasy contamination and skin cell residue from the skin and is easily washed off when water is subsequently applied by the user, *i.e.*, to remove the composition by forming an emulsion.

The Applicant respectfully maintains that none of the applied references teach or suggest these technical features of the invention and do not, therefore, teach a

skilled artisan how to achieve the performance advantages associated with these technical features of Applicant's claimed invention.

The Applicant respectfully maintains, therefore, that none of the applied references fairly (a) identify the technical problem addressed by the claimed composition or (b) teach or suggest how to solve that problem as Applicant has with the claimed invention.

Accordingly, Applicant's invention satisfies the inventive step requirement, a requirement which is not defeated by any of the applied references D1-D4, whether considered individually or in the combination applied.

Paragraph 3. Dependent Claims 2-7

As claims 2-7 depend from claim 1 and introduce additional limitations to the claimed composition, the Applicant respectfully maintains that each of the dependent claims is allowable over the applied references for at least the same reasons as detailed above with respect to claim 1.

Item VII – Certain Defects in the International Application

As noted in substitute page 2 attached hereto, references D1-D4 are now identified and briefly discussed in the description. The Applicant respectfully submits that the application is now in compliance with Rule 5.1(a)(ii) PCT and the Guidelines II, 4.4 PCT.

As reflected in the substitute pages 12 and 13 attached hereto, the English units originally present in the description have been edited to include the

corresponding S.I. unit measurements. The Applicant respectfully submits that the application is now in compliance with Rule 10.1(a)-(e) PCT and the Guidelines II, 4.15 PCT.

Item VIII – Certain Observations on the International Application

The Written Opinion identifies the terms “at least substantially anhydrous” and “at least substantially insoluble” as rendering claim 1 unclear. To expedite prosecution, these offending terms have been deleted. The Applicant respectfully submits that the present amendments to claim 1 are sufficient to provide the necessary degree of clarity to the claim and that the claims are now in compliance with Article 6 PCT.

The Written Opinion also identifies the definition of the ingredients of the claimed composition in terms of the result to be achieved as rendering the claims indefinite. The Applicant respectfully contends that the amendments to claim 1, by incorporating the corresponding weight ranges from the description, are sufficient to bring the claims into compliance with Article 6 PCT. As noted, to expedite prosecution, the claims have been amended to resolve any such issue(s).

Summary

Applicant submits this Response to Written Opinion (and all of its listed attachments) together with the appropriate Demand, Fee Calculation Sheet and associated fees (to be charged to our Deposit Account No. 28300413) so that the response may be fully considered.

In view of the foregoing amendments and remarks, a favorable Examination Report is earnestly solicited.

The undersigned has the appropriate power to represent the Applicant in view of the General Power of Attorney executed in his favor attached hereto. Please note that the undersigned Attorney's name and address are listed at page 2 of the General Power of Attorney.

Respectfully submitted,



Ajay S. Pathak
U.S. Reg. No. 38,266

Date: February 2, 2005

Gregory P. Brummett
U.S. Reg. No. 41,646

Harness, Dickey & Pierce, P.L.C.
11730 Plaza America Drive
Suite 600
Reston, Virginia 20190
U.S.A.

Tel.: (703) 668-8033
Tel.: (703) 668-8000
Fax: (703) 668-8200

Enclosures:

Amended Clean Claims (3 pages)
Marked-Up Claims Corresponding to Clean Claims (3 pages)
Substitute pages 2, 2a, 12 and 13 (4 pages)
Demand
Fee Calculation Sheet
General Power of Attorney (2 pages)



AMENDED CLAIMS

(clean version incorporating all indicated amendments)

1. A skin cleansing composition including no more than 5 wt % water in addition to water of crystallization and comprising

- a) at least one water immiscible emollient oil present at a concentration of from 15 wt % to 85 wt % of the composition for providing emolliency to skin,**
- b) at least one emulsifying agent present at a concentration of from 1 wt % to 15 wt % and capable of forming an emulsion, in situ, on the skin with the emollient oil when water is applied to the said composition, the said emulsifier provided in such quantities that the oil is substantially removed from the skin,**
- c) a skin exfoliative and/or skin polishing particulate material present at a concentration of from 1 wt % to 50 wt % of the composition for removing dead cells from the skin during application of the composition and having a water solubility of at least 15 parts by weight of the material in 100 parts of water at 20°C and,**
- d) at least one wax present at a concentration from 1 wt % to 15 wt % of the composition for enhancing the physical stability of the composition.**

2. The composition in accordance with claim 1, wherein the oil is selected from the group consisting of:

- a) mineral oils including paraffin oil and petroleum jelly oil,**
- b) animal oils including purcellin oil, perhydroqualene, fish oils and lanolin oil,**
- c) vegetable oils including sweet almond oil, palm oil, calophyllum oil, avocado oil, olive oil, castor oil, cereal germ oil, canola oil, sunflower oil, soybean oil and jojoba oil,**
- d) silicone oils including dimethylpolysiloxane and cyclomethicone,**
- e) esters including butyl myristate, isopropyl myristate, cetyl myristate, isopropyl palmitate, butylstearate, hexadecyl, stearate, isopropyl stearate, octyl stearate, isocetyl stearate, decyl oleate, hexyl laurate di-caprylate of propylene glycol, and di-isopropyl adipate,**

- 
- f) organic alcohols including oleic alcohol, linoleic alcohol, linolenic alcohol, isoctaryl alcohol and octyl dodecanol,
 - g) esters derived from lanolic acid including isopropyl lanolate and isocetyl lanolate,
 - h) free fatty acids including lanoleic acid, myristic acid, palmitic acid and stearic acid
 - i) and mixtures thereof.

3. The composition in accordance with claim 1 wherein the emulsifying agent is selected from the group consisting of exemplary emulsifying agents include, without being limited thereto, ethoxylated carboxylic acids, ethoxylated glycerides, glycol esters and derivatives thereof, monoglycerides, polyglyceryl esters, polyhydric alcohol esters and ethers, sorbitan/sorbitol esters, triesters of phosphoric acid, ethoxylated-fatty alcohols, propoxylated polyoxyethylene (POE) ethers, glyceryl stearate, PEG-100 stearate, sorbitan stearate, PEG-40 stearate, steareth-2, steareth-20, steareth-100, polysorbate-20, laureth-1, laureth-23, polysorbate 80, sucrose distearate, glyceryl oleate, and mixtures thereof.

4. The composition in accordance with claim 1 wherein the skin exfoliative and/or skin polishing particulate material is selected from the group consisting of salts, sugars, urea, water soluble urea derivatives, polymers and mixtures thereof.

48

5. The composition in accordance with claim 1 wherein the wax is selected from the group consisting of:

- a) mineral waxes including microcrystalline waxes, paraffin, and petroleum jelly,
- b) fossil waxes including ozokerite, and montan wax,
- c) animal waxes including beeswax, spermaceti, lanolin wax, lanolin derivatives such as lanolin alcohols, hydrogenated lanolin, hydroxylated lanolin, acetylated lanolin, fatty acids of lanolin, and acetylated lanolin alcohol,
- d) vegetable waxes including candelila wax, carnauba wax, sumac wax, cocoa butter wax, and shea butter,
- e) hydrogenated waxes which are solid at 25°C including hydrogenated castor oil, hydrogenated palm oil, hydrogenated tallow, hydrogenated cocoa oil, and hydrogenated soy oil,
- f) synthetic oils including polyethylene, and copolymerized polyethylene waxes,
- g) fatty esters which are solid at 25°C including monomyristate of propylene glycol, and myristyl myristate,
- h) silicone oils including methyloctadecane-oxypolysiloxane and poly (dimethylsiloxy) stearoxysiloxane, and dimethicone,
- i) and mixtures thereof.

6. The composition in accordance with claim 1 wherein the emulsifier is a mixture of at least two emulsifiers, a first emulsifier having a HLB value no greater than 8 and a second emulsifier having a HLB value greater than 8.

7. The composition in accordance with claim 6 wherein the first emulsifier has a HLB value from 3 to 7 and the second emulsifier has a HLB value from 10 to 19.

81

AMENDED CLAIMS

(with markings to show changes made)

1. A skin cleansing composition including no more than 5 wt % water in addition to water of crystallization~~which is at least substantially anhydrous and comprising~~emprises

a) ~~At at least one water immiscible emollient oil present at a concentration of from 15 wt % to 85 wt % of the composition for in sufficient quantity to provide~~providing emolliency to skin,

b) ~~At at least one emulsifying agent present at a concentration of from 1 wt % to 15 wt % and capable of forming an emulsion, in situ, on the skin with the emollient above-oil when water is added~~applied to the said composition, the said emulsifier provided in such quantities that the oil is substantially removed from the skin,

c) ~~A water-soluble, at least substantially insoluble in the composition~~a skin exfoliative and/or skin polishing particulate material present at a concentration of from 1 wt % to 50 wt % of the composition for removing in sufficient quantities to remove dead cells from the skin during application of the composition and having a water solubility of at least 15 parts by weight of the material in 100 parts of water at 20°C and,

d) ~~At at least one wax present at a concentration from 1 wt % to 15 wt % of the composition for enhancing in sufficient quantity to at least enhance the physical stability~~stabilization of the composition.

2. The composition in accordance with claim 1, wherein the oil is selected from the group consisting of:

a) ~~Mineral-mineral~~ oils including paraffin oil ~~and petroleum jelly oil,~~

b) ~~Animal-animal~~ oils including purcellin oil, perhydrosqualene, fish oils and lanolin oil,

c) ~~Vegetable-vegetable~~ oils including sweet almond oil, palm oil, calophyllum oil, avocado oil, olive oil, castor oil, cereal germ oil, canola oil, sunflower oil, soybean oil and jojoba oil,

d) ~~Silicone-silicone~~ oils including dimethylpolysiloxane and cyclomethicone,

- 82 ✓
- e) ~~Esters-esters~~ including butyl myristate, isopropyl myristate, cetyl myristate, isopropyl palmitate, butylstearate, hexadecyl, stearate, isopropyl stearate, octyl stearate, isocetyl stearate, decyl oleate, hexyl laurate di-caprylate of propylene glycol, and di-isopropyl adipate,
 - f) ~~Organic-organic~~ alcohols including oleic alcohol, linoleic alcohol, linolenic alcohol, isostearyl alcohol, and octyl dodecanol,
 - g) ~~Esters-esters~~ derived from lanolic acid including isopropyl lanolate, and isocetyl lanolate,
 - h) ~~Free-free fatty acid-acids~~ including lanoleic acid, myristic acid, palmitic acid, and stearic acid and the like.
 - i) ~~And-and~~ mixtures thereof.

3. The composition in accordance with claim 1 wherein the emulsifying agent is selected from the group consisting of exemplary emulsifying agents include, without being limited thereto, ethoxylated carboxylic acids, ethoxylated glycerides, glycol esters and derivatives thereof, monoglycerides, polyglyceryl esters, polyhydric alcohol esters and ethers, sorbitan/sorbitol esters, triesters of phosphoric acid, ethoxylated-fatty alcohols, propoxylated polyoxyethylene (POE) ethers, ~~and the like and mixtures thereof. Particularly preferred are~~ glyceryl stearate, PEG-100 stearate, sorbitan stearate, PEG-40 stearate, steareth-2, steareth-20, steareth-100, polysorbate-20, laureth-1, laureth-23, polysorbate 80, sucrose distearate, glyceryl oleate, and mixtures thereof.

4. The composition in accordance with claim 1 wherein the skin exfoliative and/or skin polishing particulate material ~~"e"-material~~ is selected from the group consisting of salts, sugars, urea, water soluble urea derivatives, ~~polymer-polymers~~ and mixtures thereof.

463
5. The composition in accordance with claim 1 wherein the wax is selected from the group consisting of:

- a) ~~The mineral waxes~~ including microcrystalline waxes, ~~paraffin~~, and petroleum jelly,
- b) ~~The fossil waxes~~ including ozokerite, and montan wax,
- c) ~~Animal~~ animal waxes including beeswax, spermaceti, lanolin wax, lanolin derivatives such as lanolin alcohols, hydrogenated lanolin, hydroxylated lanolin, acetylated lanolin, fatty acids of lanolin, and acetylated lanolin alcohol,
- d) ~~Vegetable~~ vegetable waxes including candelilla wax, carnauba wax, sumac wax, cocoa butter wax, and shea butter,
- e) ~~Hydrogenated~~ hydrogenated waxes which are solid at 25°C including hydrogenated castor oil, hydrogenated palm oil, hydrogenated tallow, hydrogenated cocoa oil, and hydrogenated soy oil,
- f) ~~Synthetic~~ synthetic oils including polyethylene, and copolymerized polyethylene waxes,
- g) ~~The fatty esters~~ which are solid at 25°C including monomyristate of propylene glycol, and myristyl myristate,
- h) ~~Silicone~~ silicone oils including methyloctadecane-oxypolysiloxane and poly (dimethylsiloxyl) stearoxy siloxane, and dimethicone,
- i) and mixtures thereof.

6. The composition in accordance with claim 1 wherein the emulsifier is a mixture of at least two emulsifiers, a first emulsifier having a HLB value no greater than 8 and a second emulsifier having a HLB value greater than 8.

7. The composition in accordance with claim 6 wherein the first emulsifier has a HLB value from 3 to 7 and the second emulsifier has a HLB value from 10 to 19.

substantially insoluble in the substantially anhydrous vehicle of the formulation.

However, each one of them is not totally satisfactory in at least one parameter. A composition within WO 01/85103 has 5 - 8 wt % oil separation at the top, for example. Because of separation, obtaining the same product distribution with continuous uses and, therefore, giving equivalent benefits is difficult. Additionally, the 4,673,526 patent composition is limited to cleansing by removal of oily substances on the skin without the addition of fat bodies to the skin. The WO 01/85103 composition should be removed from the skin with a relatively small amount of water, preferably up to 2 parts of the actual oily composition on the skin. These, and other disadvantages can be overcome by the discovery and use of a new at least substantially anhydrous skin cleansing composition.

U.S. Pat. No. 6,013,270 recites a "skin care composition [that] comprises an emulsion having: 1) at least one hydrophobic phase ...; 2) at least one hydrophilic phase comprising water; and 3) ... an emulsifier...." U.S. Pat. No. 3,277,013 recites "an emulsion utilizing water, hydrocarbon solvent; neutralized hydrophilic acid polymer thickening agent and [an] emulsifying agent...." U.S. Pat. No. 3,645,904 recites "a skin cleaner ... having plastic synthetic resin material ... to impart a scrubbing or mechanical detergent action" U.S. Pat. No. 4,035,514 recites "petrolatum composition [including] ... cetyl alcohol, ... lanolin, hydroxylated lanolin or lanolin alcohols and ... ethoxylated sorbitol oleic acid esters."

The present anhydrous skin cleansers provide skin cleansing exfoliation and/or polishing in a cosmetically aesthetic vehicle while, at the same time, leaving the skin exceptionally soft, smooth and moisturized. The composition has at least enhanced phase stability, can polish and/or exfoliate the skin, and can be effectively removed from the skin with varying amounts of water.

Summary of the Invention

In accordance with the invention, there is a composition which is at least substantially anhydrous and comprises:

- a) *at least one water insoluble emollient oil in sufficient quantity to provide emolliency to the skin,*
- b) *at lease one emulsifying agent capable of forming an emulsion in situ on the skin with the above oil when water is added to the said composition,*

Example 2

Components	Wt %
Canola oil	49.30
Stearic acid	10.00
PEG-100-Stearate	1.5
Glycerol Stearate	1.5
Sucrose Distearate	0.5
Shea butter	0.50
Cetyl alcohol	1.6
Stearyl alcohol	0.6
White beeswax	2.00
Maltodextrin	2.00
Collodial oatmeal	2.00
Sodium chloride	27.80
Fragrance	0.40
Preservative	0.30
Totals	100.00

The components were mixed together.

Samples were placed in 118 ml (4 oz) glass containers and allowed to age at various temperatures. Appearance of phase separation was examined by visual inspection. Amount of separation was estimated by dividing the volume of separated liquid by the total volume in the sample container.

No visual phase separation occurred at 25°C (77°F) and 43°C (110°F) for 49 days.

Example 3

Components	Wt %
Canola oil	47.40
Carnauba wax	2.00
Stearic acid	10.00
PEG-100-Stearate	1.5
Glycerol Stearate	1.5
Shea butter	0.50
Cetyl alcohol	1.6
Stearyl alcohol	1.6
White beeswax	2.00
Sucrose Stearate	0.50
Maltodextrin	2.00
Collodial oatmeal	2.00
Sodium Chloride	26.95
Polysorbate80	0.75
Fragrance	0.40
Preservative	0.30
Totals	100.00

Following the protocol of Example 2, there was no visual phase separation at 25°C (77°F) and 43°C (110°F) for 104 days.

Comparative Example - An anhydrous exfoliation scrub having the label components below which meet the WO 01/85103 component description was purchased at the retail store Crabtree and Evelyn and tested according to the protocol of Example 2. A 5% phase separation occurred at 43°C (110°F) after 22 days and a 9% phase separation occurred at 25°C (77°F) after 22 days following the protocol of Example 2.

Component list for comparative example:

Macadamia terni folia seed oil, sodium chloride, calcium stearate, maltodextrin, emulsifying wax NF, isopropyl myristate, butyrospermum park 11, (shea butter), collodial oatmeal USP, sodium methyl cocoyl taurate,

PCT REQUEST

Original (for SUBMISSION)

0	For receiving Office use only	
0-1	International Application No.	
0-2	International Filing Date	
0-3	Name of receiving Office and "PCT International Application"	
0-4	Form - PCT/RO/101 PCT Request Prepared Using	PCT-SAFE [EASY mode] Version 3.50 (Build 0002.158)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	United States Patent and Trademark Office (USPTO) (RO/US)
0-7	Applicant's or agent's file reference	7137-00
I	Title of invention	COMPOSITION
II	Applicant	
II-1	This person is:	applicant only
II-2	Applicant for	all designated States except US
II-4	Name:	COLGATE-PALMOLIVE COMPANY
II-5	Address:	300 Park Avenue New York, New York 10022 United States of America
II-6	State of nationality	US
II-7	State of residence	US
II-8	Telephone No.	732-878-7153
II-9	Facsimile No.	732-878-7853
III-1	Applicant and/or inventor	
III-1-1	This person is:	applicant and inventor
III-1-2	Applicant for	US only
III-1-4	Name (LAST, First)	JOHANSSON, Marie
III-1-5	Address:	22 East Drive Watchung, New Jersey 07069 United States of America
III-1-6	State of nationality	SE
III-1-7	State of residence	US

PCT REQUEST

Original (for SUBMISSION)

III-2	Applicant and/or inventor	
III-2-1	This person is:	applicant and inventor
III-2-2	Applicant for	US only
III-2-4	Name (LAST, First)	GHAN, Josh
III-2-5	Address:	89 Rachel Court Franklin Park, New Jersey 08823 United States of America
III-2-6	State of nationality	US
III-2-7	State of residence	US
III-3	Applicant and/or inventor	
III-3-1	This person is:	applicant and inventor
III-3-2	Applicant for	US only
III-3-4	Name (LAST, First)	SOLIMAN, Nedra
III-3-5	Address:	53 Race Track Road East Brunswick, New Jersey 08816 United States of America
III-3-6	State of nationality	US
III-3-7	State of residence	US
IV-1	Agent or common representative; or address for correspondence	
	The person identified below is hereby/ has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	MIANO, Rosemary, M.
IV-1-2	Address:	COLGATE-PALMOLIVE COMPANY 909 River Road P.O. Box 1343 Piscataway, New Jersey 08855 United States of America
IV-1-3	Telephone No.	732-878-7153
IV-1-4	Facsimile No.	732-878-7853
IV-1-5	e-mail	rosemary_miano@colpal.com
IV-1-6	Agent's registration No.	29,674
V	DESIGNATIONS	
V-1	The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.	

PCT REQUEST

Original (for SUBMISSION)

VI-1	Priority claim of earlier national application		
VI-1-1	Filing date	03 April 2003 (03.04.2003)	
VI-1-2	Number	10/406,123	
VI-1-3	Country	US	
VI-2	Priority document request The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1	
VII-1	International Searching Authority Chosen	European Patent Office (EPO) (ISA/EP)	
VIII	Declarations	Number of declarations	
VIII-1	Declaration as to the identity of the inventor	-	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	1	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	1	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	

PCT REQUEST

Original (for SUBMISSION)

VIII-2-1	Declaration: Entitlement to apply for and be granted a patent Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(I) and 51bis.1(a)(II)). In a case where the declaration under Rule 4.17(iv) is not appropriate: Name (LAST, First)	in relation to this international application COLGATE-PALMOLIVE COMPANY is entitled to apply for and be granted a patent by virtue of the following:
VIII-2-1(i) v)		an assignment from JOHANSSON, Marie to COLGATE-PALMOLIVE COMPANY, dated 03 April 2003 (03.04.2003)
VIII-2-1(i) v)		an assignment from GHAIM, Josh to COLGATE-PALMOLIVE COMPANY, dated 03 April 2003 (03.04.2003)
VIII-2-1(i) v)		an assignment from SOLIMAN, Nadia to COLGATE-PALMOLIVE COMPANY, dated 03 April 2003 (03.04.2003)
VIII-2-1(i) x)	This declaration is made for the purposes of:	all designations

PCT REQUEST

Original (for SUBMISSION)

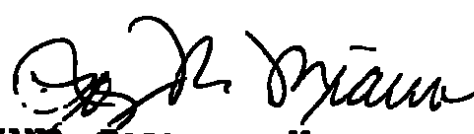
92✓

VIII-3-1	Declaration: Entitlement to claim priority Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(II) and 51bis.1(a)(II)) Name:	in relation to this international application COLGATE-PALMOLIVE COMPANY is entitled to claim priority of earlier application No. 10/406,123 by virtue of the following:
VIII-3-1(i) v)		an assignment from JOHANSSON, Marie to COLGATE-PALMOLIVE COMPANY, dated 03 April 2003 (03.04.2003)
VIII-3-1(i) v)		an assignment from GHAIM, Josh to COLGATE-PALMOLIVE COMPANY, dated 03 April 2003 (03.04.2003)
VIII-3-1(i) v)		an assignment from SOLIMAN, Nadia to COLGATE-PALMOLIVE COMPANY, dated 03 April 2003 (03.04.2003)
VIII-3-1(i) x)	This declaration is made for the purposes of:	all designations

PCT REQUEST

Original (for SUBMISSION)

93

IX	Check list	number of sheets	electronic file(s) attached
IX-1	Request (including declaration sheets)	6	✓
IX-2	Description	14	-
IX-3	Claims	3	-
IX-4	Abstract	1	✓
IX-5	Drawings	0	-
IX-7	TOTAL	24	
	Accompanying items	paper document(s) attached	electronic file(s) attached
IX-8	Fee calculation sheet	✓	-
IX-17	PCT-SAFE physical media	-	✓
IX-19	Figure of the drawings which should accompany the abstract		
IX-20	Language of filing of the international application	English	
X-1	Signature of applicant, agent or common representative		
X-1-1	Name (LAST, First)	MIANO, Rosemary, M.	
X-1-2	Name of signatory		
X-1-3	Capacity		

FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/EP
10-6	Transmittal of search copy delayed until search fee is paid	

FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
------	--	--

PCT (ANNEX - FEE CALCULATION SHEET)

Original (for SUBMISSION)

(This sheet is not part of and does not count as a sheet of the international application)

0	For receiving Office use only			
0-1	International Application No.			
0-2	Date stamp of the receiving Office			
0-4	Form PCT/RO/101 (Annex) PCT Fee Calculation Sheet			
0-4-1	Prepared Using	PCT-SAFE [EASY mode] Version 3.50 (Build 0002.158)		
0-6	Applicant's or agent's file reference	7137-00		
2	Applicant	COLGATE-PALMOLIVE COMPANY		
12	Calculation of prescribed fees	fee amount/multiplier	Total amounts (USD)	
12-1	Transmittal fee T	⇒	300	
12-2-1	Search fee S	⇒	1818	
12-2-2	International search to be carried out by	EP		
12-3	International filing fee (first 30 sheets) H	1035		
12-4	Remaining sheets	0		
12-5	Additional amount (A)	0		
12-6	Total additional amount I2	0		
12-7	H + I2 = I	1035		
12-12	EASY Filing reduction R	-74		
12-13	Total international filing fee (I-R) I	⇒	961	
12-14	Fee for priority document			
	Number of priority documents requested	1		
12-15	Fee per document (A)	20		
12-16	Total priority document fee: P	⇒	20	
12-17	TOTAL FEES PAYABLE (T+S+H+P)	⇒	3099	
12-19	Mode of payment	authorization to charge deposit account		
12-20	Deposit account instructions			
	The receiving Office	United States Patent and Trademark Office (USPTO) (RO/US)		
12-20-1	Authorization to charge the total fees indicated above.	✓		
12-20-2	Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.	✓		
12-20-3	Authorization to charge the fee for priority document.	✓		
12-21	Deposit account No.	03-2457		
12-22	Date	01 April 2004 (01.04.2004)		
12-23	Name and signature	DUNNE, Elizabeth, M. <i>Elizabeth M. Dunne</i>		

Composition

a)

Background of the Invention

5 **Aqueous skin cleansing compositions have been used for centuries. The problems with them are well known with respect to removing oil based skin deposits or leaving the skin too dry. Likewise oil-in-water and water-in-oil emulsions also have various difficulties. These and various other issues have been disclosed in WO 01/85103, published on November 15, 2001.**

10 **Prior attempts have been made to overcome the foregoing problems of aqueous emulsions by employing anhydrous skin cleansers. Anhydrous skin cleansers, sometimes called waterless cleansers, typically contain high concentrations of water-insoluble solvents, which makes them generally effective at removing oily undesirable moieties from the skin, but less**
15 **effective in removing water-soluble undesirables. Further, anhydrous skin cleansers typically are not cosmetically elegant tending to have a heavy, greasy feel making them unappealing to the touch and are not easily removed from the skin. They generally must be wiped off with toweling, leaving the skin feeling greasy or need to be washed off with strong soap,**
20 **leaving the skin feeling harsh and dry.**

Various solutions to these problems have been proposed in the prior art. For example, US Patent No. 4,673,526 proposes an anhydrous three component system designed for skin cleansing having a solid particulate matter of various polymers to remove oily particles while being essentially
25 **multiphase. The publication WO 01/85103 discloses a substantially anhydrous four component system comprising a) at least one water-immiscible cosmetic emollient oil, the cosmetic emollient oil comprising a major portion of the formulation; b) at least one oil-gelling agent that is both water-insoluble and oil-insoluble; c) at least one emulsifying agent capable of**
30 **forming an emulsion, in situ, on the skin when a small amount of water is added gradually to the substantially anhydrous formulation during use; and d) a substantially crystalline water-soluble, abrasive material that is**

substantially insoluble in the substantially anhydrous vehicle of the *af* formulation.

35 However, each one of them is not totally satisfactory in at least one parameter. A composition within WO 01/85103 has 5 - 8 wt % oil separation at the top, for example. Because of separation, obtaining the same product distribution with continuous uses and, therefore, giving equivalent benefits is difficult. Additionally, the 4,673,526 patent composition is limited to
40 cleansing by removal of oily substances on the skin without the addition of fat bodies to the skin. The WO 01/85103 composition should be removed from the skin with a relatively small amount of water, preferably up to 2 parts of the actual oily composition on the skin. These, and other disadvantages can be overcome
45 by the discovery and use of a new at least substantially anhydrous skin cleansing composition.

The present anhydrous skin cleansers provide skin cleansing exfoliation and/or polishing in a cosmetically aesthetic vehicle while, at the same time, leaving the skin exceptionally soft, smooth and moisturized. The composition
50 has at least enhanced phase stability, can polish and/or exfoliate the skin, and can be effectively removed from the skin with varying amounts of water.

Summary of the Invention

55 In accordance with the invention, there is a composition which is at least substantially anhydrous and comprises:

- a) at least one water insoluble emollient oil in sufficient quantity to provide emolliency to the skin,
- b) at least one emulsifying agent capable of forming an
60 emulsion in situ on the skin with the above oil when water is added to the said composition,

c) *exfoliative and/or polishing material in sufficient quantities to remove cell debris from the skin during application of the composition.*

65 d) *at least one wax in sufficient quantity to at least enhance the physical stabilization of the composition.*

A further aspect of the invention is the application of this composition to the skin, working the composition into the skin, adding water to the composition on the skin, with continual working into the skin, if desired, and
70 *then removing from the skin as a solution or an aqueous emulsion.*

Detailed Description of the Invention

At least one water immiscible emollient oil component is present in the
75 *composition. Illustrative examples of the oil(s) include:*

1. *Mineral oils: paraffin oil, petroleum jelly oil.*

2. *Animal oils: Purcellin oil, perhydrosqualene, fish oils and lanolin oil.*

80 3. *Vegetable oils: Sweet almond oil, palm oil, calophyllum oil, avocado oil, olive oil, castor oil, cereal germ oil such as oil of wheat germs, canola oil, sunflower oil, soybean oil and jojoba oil.*

4. *Silicone oils: Dimethylpolysiloxane, cyclomethicone*

85 5. *Esters: Butyl myristate, isopropyl myristate, cetyl myristate, isopropyl palmitate, butylstearate, hexadecyl, stearate, isopropyl stearate, octyl stearate, isoceryl stearate, decyl oleate, hexyl laurate di-caprylate of propylene glycol, di-isopropyl adipate*

6. *The organic alcohols: Oleic alcohol, linoleic alcohol, linolenic alcohol, isostearyl alcohol, octyl dodecanol*

90 7. *The esters derived from lanolic acid: Isopropyl lanolate, isocetyl lanolate*

8. *Free fatty acid including linoeleic, myristic, palmitic, stearic and the like.*

In addition to the classes of the compounds mentioned above, one can also utilize as additional illustrative oils the acetyl glycerides, the octanoates and decanoates of alcohols and polyalcohols such as those of glycol and glycerol, the ricinoleates of alcohols and polyalcohols such as that of cetyl.

The oil or oils can be in the composition at a minimum of about 15, 20, 25, or 30 wt % of the composition. The maximum amount of oil can be up to about 85, 75, 65, or about 60 wt % of the composition.

The emulsifier, component b, is also an important portion of the composition. The ability to emulsify the oil, component a, when water is added, is a significant effect of the composition. This provides a clean surface to the skin after water is added but still allows the skin to benefit from the emolliency of the oil. To facilitate the forming of an emulsion upon the first addition of water to the composition in contact with the skin more than one emulsifier can be employed. Therefore, it is preferred to use a mixture of at least two emulsifiers, one having a relatively low HLB value preferably of not more than 8, more preferably in the range of about 3 to about 7, and one having a relatively high HLB of preferably at least 8, more preferably in the range of about 10 to about 19. "HLB" refers to the well known calculated Hydrophile-Lipophile-Balance value assigned to emulsifiers, most commonly nonionic emulsifiers, relating to the water solubility of the emulsifier. An explanation of the HLB system is given in "The HLB System, A Time Saving Guide to Emulsifier Selection" by ICI Americas, Inc., Wilmington Delaware, 19897, 1984.

The anhydrous skin composition of the present invention readily form an emulsion when the anhydrous skin composition is contacted with water. Thus, this invention beneficially retains the cell debris removal efficacy without an unwanted oily residue but leaving the skin feeling smooth and moisturized.

Exemplary emulsifying agents include, without being limited thereto, ethoxylated carboxylic acids, ethoxylated glycerides, glycol esters and derivatives thereof, monoglycerides, polyglyceryl esters, polyhydric alcohol esters and ethers, sorbitan/sorbitol esters, triesters of phosphoric acid, ethoxylated-fatty alcohols, propoxylated polyoxyethylene (POE) ethers and the like and mixtures thereof. Particularly preferred are glyceryl stearate,

PEG-100 stearate, sorbitan stearate, PEG-40 stearate, steareth-2, steareth-20, steareth-100, polysorbate-20, laureth-12, laureth-23, polysorbate 80, sucrose distearate, glyceryl oleate, and the like as well as mixtures thereof.

Generally, at least about 1 wt % of the composition is emulsifier(s), or at least about 2 wt %. Usually no more than about 15 wt % of an emulsifier(s), based upon weight of the composition, is necessary, though no more than about 10 wt % can also be employed.

Component c provides the polishing and/or exfoliative action to the skin. Illustrative exemplification of these materials are salts, polymers and the like. Examples of salts include Dead Sea salt, salts of Group IA and IIA metals and ammonia including for example, sodium chloride, potassium chloride, sodium nitrate, magnesium sulfate, ammonium chloride and the like.

Additionally materials such as sugars, starch, urea and water-soluble urea derivatives such as allantoin can also be used. Some of these materials are substantially crystalline. One or more of these water-soluble materials are employed, preferably having sufficient water solubility such that at least about 15 parts by weight of the material will dissolve in 100 parts by weight of water at 20°C, also including at least about 25 or 30 parts solubility and which are insoluble in the anhydrous skin cleanser composition. The particle size of the material should be sufficiently large to serve as a scrubbing and/or polishing agent against the skin to remove dirt and cellular debris, such as rough dead skin cells, and yet not so large as to scratch or irritate the skin.

Although salts, urea, starch and the like can be polishers of skin as well, it is generally preferred to use the polymers as polishing agents although they can have exfoliative characteristics as well. Examples of polymers include:

1. The xanthan gums, which are heteropolysaccharides, notably the products known under the commercial names of KELTROL and KELTROL F by the CP KELCO Company, as well as the product known under the commercial name of RHODOPOL 23 and RHODIACARE T sold by RHODIA, INC.

2. *The carboxymethy starch, notably the product sold under the commercial name of PERFECTAMYL GEL 45 and PERFECTAMYL GEL MB by the AVEBE Company.*
3. *The cellulose ethers such as ethylhydroxyethylcellulose, sold under the commercial name of "BERMOCOLL" by the AKZO NOBEL Company.*
4. *The hydroxyalkylcelluloses such as hydroxyethylcellulose and hydroxypropylmethylcellulose, sold under the commercial name of CELLOSIZ by AMERCHOL CORPORATION, or under the commercial name of NATROSOL by the HERCULES, INC. or under the commercial name of METHOCEL by the DOW CHEMICAL Company, including METHOCEL E50. The hydroxypropyl starch notably the products sold under the commercial names of ZEINA B860 by the GRAIN PROCESSING CORPORATION.*

These polymers desirably have an approximate granulometry allowing a gentle and non-irritating action.

Component c materials, particularly the salts, are generally employed at a minimum level sufficient to provide a skin exfoliative, cleansing, skin debris removal effect. Generally, at least about 1, 2, 3, or 5 wt % of the composition is employed desirably at least about 10 or 15 wt %. No more than about 50 wt % of salts is necessary with quantities not exceeding about 40, 30 or 25 wt % being also beneficial.

The polymers of component c, such as enumerated above, plus starch, sugar and the like can be employed at quantities at least about 1, 2, 3 or 5 wt % of the composition, desirably at least about 2 wt %. Generally, no more than about 50 wt % of the composition can be employed with quantities not exceeding about 40, 30, 25 or 20 wt % being also beneficial. Mixtures of the various components, for example , mixtures of polymers and mixtures of salt (ionics) and polymers can be used.

Component d is the wax material. These materials provide the enhanced phase integrity to the overall composition. When this component is absent, the composition disperses into separate phases, the latter oil phase rising to the top with the heavier salt/polymer materials sinking to the

bottom. This provides an unpleasing appearance to the composition, particularly when it is in a container wherein the composition is "scooped" therefrom as well as presenting a serious potential issue of using a composition richer in one component and/or poorer in one component each time the composition is employed. When a wax is used a single, at least essentially visually homogeneous phase for the composition can be obtained. The previously enumerated disadvantages are avoided or essentially reduced. With a physically stable phase present, the delivery (storage) vehicle possibilities are expanded substantially. For example, the composition can be loaded into a container such as a tube capable of deformation wherein a uniform or at least substantially uniform composition can be delivered to the skin upon pressure deformation of the container's exterior.

Illustrative examples of waxes include:

1. The mineral waxes: microcrystalline waxes, paraffin, petroleum jelly,
2. The fossil waxes: ozokerite, montan wax,
3. Animal waxes: beeswax, spermaceti, lanolin wax, lanolin derivatives such as lanolin alcohols, hydrogenated lanolin, hydroxylated lanolin, acetylated lanolin, fatty acids of lanolin, acetylated lanolin alcohol,
4. Vegetable waxes: candelilla wax, carnauba wax, sumac wax, cocoa butter wax, and shea butter,
5. Hydrogenated waxes which are solid at 25°C; hydrogenated castor oil, hydrogenated palm oil, hydrogenated tallow, hydrogenated cocoa oil, hydrogenated soy oil,
6. Synthetic oils: polyethylene, copolymerized polyethylene waxes,
7. The fatty esters which are solid at 25°C: monomyristate of propylene glycol, myristyl myristate,
8. Silicone oils: methyloctadecane-oxypolysiloxane and poly (dimethylsiloxy) stearoxysiloxane, dimethicone, cyclomethicone.

Among the waxes, the following compounds can also be utilized:

Cetyl alcohol, stearyl alcohol, the mono-, di- and tri glycerides which are solid at 25°C, stearic monoethanolamide, colophane and its derivatives such as abietates of glycol and glycerol, the sucroglycerides. In general, a wax is a long chain hydrocarboanaecous material which is at least substantially solid at 25°C, and is preferably solid.

The quantity of wax employed in the composition is that amount which enhances phase stabilization. Generally at least about 1, 1.5, or 2 wt % of the composition can be employed, desirably at least about 2 or 3 wt %. Usually no more than about 10 or 15 wt % of the composition is wax. Mixtures of waxes can be employed.

With respect to various terms employed in the specification and claims "substantially anhydrous" means less than about 5 wt % water in the composition, preferably less than about 3 wt % water, more preferably less than about 1.5 wt % water and most preferably 0 to about 1 wt % water. In measuring the water amount, any water of crystallization of a salt is not counted in "substantially anhydrous".

The viscosity of the composition is generally that of a thick liquid or gel but can reach a pasty, paste like consistency. Generally, the viscosity is a minimum of about 10,000 or 15,000 preferably 20,000 to a maximum of about 12,000,000, 2,000,000 or even 600,000 cps.

Viscosity is measured by standard techniques such as the use of a Brookfield Viscometer. Those skilled in the art will use the appropriate spindle and speed combination to cover the range of viscosity to be measured. For less viscous samples, Brookfield spindle #5, at 20 rpm and 20°C is suitable. At high viscosities, a helipath attachment is used with for example, spindle T-E at 2.5 rpm and 20°C. For example, a preferred range of viscosity of about 500,000 to 1,200,000 cps is measured with a Brookfield viscometer using a helipath attachment with a T-E spindle at 2.5 rpm and about 20°C.

The anhydrous skin compositions of this invention can be prepared by heating together the emollient water-immiscible oil ingredients and emulsifier ingredients to a temperature of about 70°C with sufficient mixing agitation to dissolve the emulsifier in the oil to provide a substantially anhydrous oil-

emulsifier phase. The wax is then dispersed with mixing agitation in the anhydrous oil-emulsifier phase until a substantially non-runny, thickened phase begins to form, cooling the admixture, if necessary. The water-soluble exfoliative/polishing ingredient, for example, salt, sugar and/or polymer and optional ingredients, if any, are then added to the composition with sufficient mixing agitation to evenly disperse the ingredients into the composition. Those skilled in the art will understand that the order of incorporation of ingredients and temperatures employed may vary with the type of ingredient and the manner of dissolution recommended by the supplier of the material.

A preferred embodiment for using substantially anhydrous skin compositions formulated according to the invention comprises the following steps:

- a) Applying the anhydrous skin cleanser to substantially dry (not wet) skin, preferably by manually rubbing the applied amount over the skin to thoroughly coat the skin. The rubbing action preferably is a gentle rubbing or massaging for a period of at least about 5 seconds, preferably about 5 to about 30 seconds, to promote the removal of oily or greasy, water-insoluble soils and skin cell residues.
- b) Contacting the skin cleanser coated skin with an amount of water sufficient to moisten the coated skin, further continuously rubbing and massaging the so-moistened skin until the abrasive ingredient particles substantially dissolve. The formation of an emulsion in situ on the skin can be observed as a change in the appearance of the substantially transparent or translucent coating to a substantially turbid (i.e., milky to opaque) liquid emulsion.
- c) Removing the resultant emulsion from the skin, preferably by rinsing it off with additional water. The intermediate step b need not be followed. Effective skin emolliency and removal of the composition can both be accomplished by adding water of small, medium or large quantities. The skin can then be dried.

Step "b" is preferably performed by wetting the skin with tap water and massaging while rinsing the coated skin. Alternatively, a measured amount of water can be applied, if desired. Dissolution of the abrasive ingredients

can be determined during step "b" by a change in the tactile characteristic of
290 the skin cleanser on the skin from generally grainy to generally smooth.

It is recognized that in step "c" the emulsion can also be wiped off first
and the wiped skin be then rinsed. Preferably, the novel skin compositions
are readily and conveniently removable from the skin by rinsing with water,
thereby eliminating the need for tissues or towels and avoiding disposal or
295 laundry problems attendant with the use thereof.

Anhydrous skin formulations prepared with the component and ranges
disclosed possess a surprising combination of beneficial effects when used on
soiled skin. The term "soil" as applied to skin includes soils from natural
sources, such as cellular debris present on the skin, and soils from external
300 sources topically applied to the skin, such as from makeup, cosmetics, etc.
industrial greases, and environmental dirt. The anhydrous skin compositions
can thoroughly cleanse the skin of makeups and other water-immiscible
cosmetic residues. They effectively remove various types of oily and greasy
soils from the skin surface and difficult to solubilize residues. The anhydrous
305 skin compositions can remove rough and dry skin cells. Moreover, the
anhydrous skin compositions can smooth and polish the skin surface and
leave the skin soft and moisturized.

The following examples further illustrate the anhydrous skin
compositions of this invention with specific embodiments, ingredients and
310 methods but are not intended to be limiting.

Below is a preferred example, together with various preferences; all
numbers are approximate:

315

Example 1

20-90% oil, for example a vegetable oil like canola oil, preferably 30-80, more preferably 50-80

5-25% Stearic acid, preferably 7-20% more preferably 8-15

0.25-5% of glycerol stearate preferably 0.5-4% more preferably 0.75-3%

320

0.25-5% PEG-100 stearate preferably 0.5-4% more preferably 0.75-3%

0.05-5% sucrose distearate preferably 0.1-3% more preferably 0.2-2%

0-5% of shea butter preferably 0.1-4% more preferably 0.2-3%

0.1-5% cetyl alcohol preferably 0.3-3% more preferably 0.5-2%

0.5-5% stearyl alcohol preferably 0.3-3% more preferably 0.5-2%

325

0.5-5% beeswax preferably 0.75-4% more preferably 1-3%

0-10% maltodextrin preferably 0.5-5% more preferably 1-4 %

0-10% colloidal oatmeal preferably 0.5-8% more preferably 1-5 %

5-50% sodium chloride or sugar preferably 8-45% more preferably 10-40%

0-5% silicone oil

330

Example 2

Components	Wt %
Canola oil	49.30
Stearic acid	10.00
PEG-100-Stearate	1.5
Glycerol Stearate	1.5
Sucrose Distearate	0.5
Shea butter	0.50
Cetyl alcohol	1.6
Stearyl alcohol	0.6
White beeswax	2.00
Maltodextrin	2.00
Collodial oatmeal	2.00
Sodium chloride	27.80
Fragrance	0.40
Preservative	0.30
Totals	100.00

The components were mixed together.

335 *Samples were placed in 4 oz glass containers and allowed to age at various temperatures. Appearance of phase separation was examined by visual inspection. Amount of separation was estimated by dividing the volume of separated liquid by the total volume in the sample container.*

340 *No visual phase separation occurred at 77°F and 110°F for 49 days.*

Example 3

Components	Wt %
Canola oil	47.40
Carnauba wax	2.00
Stearic acid	10.00
PEG-100-Stearate	1.5
Glycerol Stearate	1.5
Shea butter	0.50
Cetyl alcohol	1.6
Stearyl alcohol	1.6
White beeswax	2.00
Sucrose Distearate	0.50
Maltodextrin	2.00
Collodial oatmeal	2.00
Sodium Chloride	26.95
Polysorbate80	0.75
Fragrance	0.40
Preservative	0.30
Totals	100.00

Following the protocol of Example 2, there was no visual phase separation at
 345 77°F and 110°F for 104 days.

Comparative Example – An anhydrous exfoliation scrub having the
 label components below which meet the WO 01/85103 component description
 was purchased at the retail store Crabtree and Evelyn and tested according
 350 to the protocol of Example 2. A 5% phase separation occurred at 110°F after
 22 days and a 9% phase separation occurred at 77°F after 22 days following
 the protocol of Example 2.

Component list for comparative example:

355

Macadamia ternifolia seed oil, sodium chloride, calcium stearate,
 maltodextrin, emulsifying wax NF, isopropyl myristate, butyrospermum park
 11, (shea butter), colloidal oatmeal USP, sodium methyl cocoyl taurate,

360 *fragrance (parfum), lavandula angustifolia (lavender) oil, stearic acid, caprylic/capric triglyceride, cyclomethicone, sucrose distearate, cetyl alcohol, cetearyl alcohol, behentrimonium methosulfate, potassium stearate, phenoxyethanol, methylparaben, ethylparaben, propylparaben, butylparaben, isobutylparaben.*

Claims

365

1. A composition which is at least substantially anhydrous and comprises

a) At least one water immiscible emollient oil in sufficient quantity to provide emolliency to skin ,

370

b) At least one emulsifying agent capable of forming an emulsion, in situ, on the skin with the above oil when water is added to the said composition, the said emulsifier in such quantities that the oil is substantially removed from the skin,

375

c) A water soluble, at least substantially insoluble in the composition skin exfoliative and/or skin polishing material in sufficient quantities to remove dead cells from the skin during application of the composition and,

d) At least one wax in sufficient quantity to at least enhance the physical stabilization of the composition.

380

2. The composition in accordance with claim 1, wherein the oil is selected from the group consisting of:

a) Mineral oils including paraffin oil, petroleum jelly oil

b) Animal oils including purcellin oil, perhydrosqualene, fish oils and lanolin oil

385

c) Vegetable oils including sweet almond oil, palm oil, calophyllum oil, avocado oil, olive oil, castor oil, cereal germ oil, canola oil, sunflower oil, soybean oil and jojoba oil

d) Silicone oils including dimethylpolysiloxane and cyclomethicone

390

e) Esters including butyl myristate, isopropyl myristate, cetyl myristate, isopropyl palmitate, butylstearate, hexadecyl, stearate, isopropyl stearate, octyl stearate, isoceryl stearate, decyl oleate, hexyl laurate di-caprylate of propylene glycol, di-isopropyl adipate

f) Organic alcohols including oleic alcohol, linoleic alcohol, linolenic alcohol, isostearyl alcohol, octyl dodecanol

395

g) Esters derived from lanolic acid including isopropyl lanolate, isocetyl lanolate

h) *Free fatty acid including lanoleic, myristic, palmitic, stearic and the like.*

i) *And mixtures thereof.*

3. *The composition in accordance with claim 1 wherein the emulsifying agent is selected from the group consisting of exemplary emulsifying agents include, without being limited thereto, ethoxylated carboxylic acids, ethoxylated glycerides, glycol esters and derivatives thereof, monoglycerides, polyglyceryl esters, polyhydric alcohol esters and ethers, sorbitan/sorbitol esters, triesters of phosphoric acid, ethoxylated- fatty alcohols, propoxylated polyoxyethylene (POE)ethers and the like and mixtures thereof. Particularly preferred are glyceryl stearate, PEG-100 stearate, sorbitan stearate, PEG-40 stearate, steareth-2, steareth-20, steareth-100, polysorbate-20, laureth-1, laureth-23, polysorbate 80, sucrose distearate, glyceryl oleate, and mixtures thereof.*

4. *The composition in accordance with claim 1 wherein the "c" material is selected from the group consisting of salts, sugars, urea, water soluble urea derivatives, polymer and mixtures thereof.*

5. *The composition in accordance with claim 1 wherein the wax is selected from the group consisting of:*

a) *The mineral waxes including microcrystalline waxes, paraffin, petroleum jelly,*

b) *The fossil waxes including ozokerite, montan wax,*

c) *Animal waxes including beeswax, spermaceti, lanolin wax, lanolin derivatives such as lanolin alcohols, hydrogenated lanolin, hydroxylated lanolin, acetylated lanolin, fatty acids of lanolin, acetylated lanolin alcohol,*

d) *Vegetable waxes including candelilla wax, carnauba wax, sumac wax, cocoa butter wax, and shea butter,*

e) *Hydrogenated waxes which are solid at 25°C including hydrogenated castor oil, hydrogenated palm oil, hydrogenated tallow, hydrogenated cocoa oil, hydrogenated soy oil,*

f) *Synthetic oils including polyethylene, copolymerized polyethylene waxes,*

430

- g) The fatty esters which are solid at 25°C including monomyristate of propylene glycol, myristyl myristate,**
- h) Silicone oils including methyloctadecane-oxypolysiloxane and poly (dimethylsiloxy) stearoxysiloxane, dimethicone**
- i) and mixtures thereof.**

A skin composition which is at least substantially anhydrous and comprises

a) At least one water immiscible emollient oil in sufficient quantity to provide emolliency to skin ,

440 b) At least one emulsifying agent capable of forming an emulsion, in situ, on the skin with the above oil when water is added to the said composition, the said emulsifier in such quantities that the oil is substantially removed from the skin,

445 c) A water soluble, at least substantially insoluble in the composition skin exfoliative and/or skin polishing material in sufficient quantities to remove dead cells from the skin during application of the composition and,

d) At least one wax in sufficient quantity to at least enhance the physical stabilization of the composition.

PCT

GENERAL POWER OF ATTORNEY

(for several international applications filed under the Patent Cooperation Treaty)

(PCT Rule 90.5)

113

The undersigned person(s):

(Family name followed by given name; for a full legal entity, full official designation. The address must include postal code and name of country.)

COLGATE-PALMOLIVE COMPANY
300 Park Avenue
New York, New York 10022
United States of America

hereby appoint(s) the following person as:



agent



common representative

Name and address

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

Martin B. Barancik, Henry S. Goldfine, Bernard Lieberman, Michael J. McGreal, Rosemary M. Milano, Richard E. Nanfeldt, Ellen Park and Clifford Wilkins of

COLGATE-PALMOLIVE COMPANY
909 River Road
P.O. Box 1343
Piscataway, New Jersey 08855-1343
United States of America

to represent the undersigned before



all the competent International Authorities



the International Searching Authority only



the International Preliminary Examining Authority only

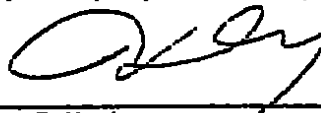
in connection with any and all international applications filed by the undersigned with the following Office

RO/US

as receiving Office

and to make or receive payments on behalf of the undersigned.

Signature(s) (where there are several persons, each of them must sign; next to each signature, indicate the name of the person signing and the capacity in which the person signs. If such capacity is not obvious from reading this power):



Andrew D. Healdy
Senior Vice President, General Counsel and
Secretary

Date: October 16, 2003

111
The demand must be filed directly with the competent International Preliminary Examining Authority or if two or more Authorities are competent with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below
IPEA/ EP

PCT

CHAPTER II

DEMAND

under Article 31 of the Patent Cooperation Treaty
The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty

For International Preliminary Examining Authority use only	
Identification of IPEA	Date of receipt of DEMAND
Box No I IDENTIFICATION OF THE INTERNATIONAL APPLICATION	
Applicant's or agent's file reference 2664P-000243/WO/PCA	
International application No PCT/US2004/010032	International filing date (day/month/year) 1 APRIL 2004
(Earliest) Priority date (day/month/year) 3 APRIL 2003	
Title of invention COMPOSITION	
Box No II APPLICANT(S)	
Name and address (Family name followed by given name, for a legal entity full official designation. The address must include postal code and name of country)	
COLGATE-PALMOLIVE COMPANY	
300 Park Avenue	
New York, New York 10022	
United States of America	
Telephone No 732 878-7157	
Facsimile No 732 878-7853	
Teleprinter No	
Applicant's registration No with the Office	
State (that is country) of nationality US	State (that is country) of residence US
Name and address (Family name followed by given name, for a legal entity full official designation. The address must include postal code and name of country)	
JOHANSSON, Marie	
22 East Drive	
Watchung New Jersey 07069	
United States of America	
State (that is country) of nationality SE	State (that is country) of residence US
Name and address (Family name followed by given name, for a legal entity full official designation. The address must include postal code and name of country)	
GHAIM Josh	
89 Rachel Court	
Franklin Park New Jersey 08823	
United States of America	
State (that is country) of nationality US	State (that is country) of residence US
☒ Further applicants are indicated on a continuation sheet	

Continuation of Box No II APPLICANT(S)

If none of the following sub-boxes is used, this sheet should not be included in the demand.

Name and address (Family name followed by given name for a legal entity full official designation. The address must include postal code and name of country.)

SOLIMAN, Nadia
53 Race Track Road
East Brunswick, New Jersey 08816
United States of America

State (that is country) of nationality
US

State (that is country) of residence
US

Name and address (Family name followed by given name for a legal entity full official designation. The address must include postal code and name of country.)

State (that is country) of nationality

State (that is country) of residence

Name and address (Family name followed by given name for a legal entity full official designation. The address must include postal code and name of country.)

State (that is country) of nationality

State (that is country) of residence

Name and address (Family name followed by given name for a legal entity full official designation. The address must include postal code and name of country.)

State (that is country) of nationality

State (that is country) of residence

☐ Further applicants are indicated on another continuation sheet

Box No III AGENT OR COMMON REPRESENTATIVE OR ADDRESS FOR CORRESPONDENCEThe following person is ☒ agent ☐ common representativeand ☐ has been appointed earlier and represents the applicant(s) also for international preliminary examination☒ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority in addition to the agent(s)/common representative appointed earlierName and address *(Family name followed by given name for a legal entity full official designation
The address must include postal code and name of country)*PATHAK Ajay S
HARNESS DICKEY & PIERCE, P L C
P O Box 8910
Reston VA 20195

Telephone No

703 668-8000

Facsimile No

703 668 8200

Teleprinter No

Agent's registration No with the Office

38,266

☐ Address for correspondence Mark this check box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent**Box No IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION****Statement concerning amendments ***

1 The applicant wishes the international preliminary examination to start on the basis of

☐ the international application as originally filed

the description

☐ as originally filed☒ as amended under Article 34

the claims

☐ as originally filed☐ as amended under Article 19 (together with any accompanying statement)☒ as amended under Article 34

the drawings

☒ as originally filed☐ as amended under Article 342 ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed3 ☐ The applicant wishes the start of the international preliminary examination to be postponed until the expiration of the applicable time limit under Rule 69 1(d)4 ☐ The applicant expressly wishes the international preliminary examination to start earlier than at the expiration of the applicable time limit under Rule 54bis 1(a)

* Where no check box is marked international preliminary examination will start on the basis of the international application as originally filed or where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report as so amended

Language for the purposes of international preliminary examination **English**☒ which is the language in which the international application was filed☐ which is the language of a translation furnished for the purposes of international search☐ which is the language of publication of the international application☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination**Box No V ELECTION OF STATES**

The filing of this demand constitutes the election of all Contracting States which are designated and are bound by Chapter II of the PCT

Box No VI CHECK LIST

The demand is accompanied by the following elements in the language referred to in Box No IV for the purposes of international preliminary examination

- | | | |
|---|----|--------|
| 1 translation of international application | 24 | sheets |
| 2 amendments under Article 34 | | sheets |
| 3 copy (or where required translation) of amendments under Article 19 | | sheets |
| 4 copy (or where required translation) of statement under Article 19 | | sheets |
| 5 letter | | sheets |
| 6 other (specify) | | sheets |

For International Preliminary
Examining Authority use only

- | received | not received |
|--------------------------|--------------------------|
| ☐ | ☐ |
| ☐ | ☐ |
| ☐ | ☐ |
| ☐ | ☐ |
| ☐ | ☐ |
| ☐ | ☐ |

The demand is also accompanied by the item(s) marked below

- | | |
|---|---|
| 1 ☒ fee calculation sheet | 5 ☐ statement explaining lack of signature |
| 2 ☐ original separate power of attorney | 6 ☐ sequence listing in computer readable form |
| 3 ☐ original general power of attorney | 7 ☐ tables in computer readable form related to a sequence listing |
| 4 ☒ copy of general power of attorney reference number if any | 8 ☐ other (specify) |

Box No VII SIGNATURE OF APPLICANT AGENT OR COMMON REPRESENTATIVE

Next to each signature indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand)


Ajay S Pathak
Req No 38,266

February 2, 2005
Date

For International Preliminary Examining Authority use only

1 Date of actual receipt of DEMAND

2 Adjusted date of receipt of demand due to CORRECTIONS under Rule 60 I(b)

- 3 ☐ The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5 below does not apply
☐ The applicant has been informed accordingly
- 4 ☐ The date of receipt of the demand is WITHIN the time limit of 19 months from the priority date as extended by virtue of Rule 80 5
- 5 ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority date the delay in arrival is EXCUSED pursuant to Rule 82

- 6 ☐ The date of receipt of the demand is AFTER the expiration of the time limit under Rule 54bis 1(a) and item 7 or 8 below does not apply
- 7 ☐ The date of receipt of the demand is WITHIN the time limit under Rule 54bis 1(a) as extended by virtue of Rule 80 5
- 8 ☐ Although the date of receipt of the demand is after the expiration of the time limit under Rule 54bis 1(a) the delay in arrival is EXCUSED pursuant to Rule 82

For International Bureau use only

Demand received from IPEA on

118

PCT

FEE CALCULATION SHEET

Annex to the Demand

International application No PCT/US2004/010032	For International Preliminary Examining Authority use only	
Applicant's or agent's file reference 2664P-000243/WO/PCA	Date stamp of the IPEA	
Applicant COLGATE PALMOLIVE COMPANY		
CALCULATION OF PRESCRIBED FEES		
1 Preliminary examination fee	EUR 1530	P
2 Handling fee <i>(Applicants from certain States are entitled to a reduction of 75% of the handling fee Where the applicant is (or all applicants are) so entitled the amount to be entered at H is 25% of the handling fee)</i>	EUR 129	H
3 Total of prescribed fees Add the amounts entered at P and H and enter total in the TOTAL box	EUR 1659	
TOTAL		
MODE OF PAYMENT		
☒ authorization to charge deposit account with the IPEA (see below)	☐ cash	
☐ cheque	☐ revenue stamps	
☐ postal money order	☐ coupons	
☐ bank draft	☐ other (specify)	
AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT <i>(This mode of payment may not be available at all IPEAs)</i>		
☒ Authorization to charge the total fees indicated above	IPEA/ <u>EP</u>	
☒ <i>(This check box may be marked only if the conditions for deposit accounts of the IPEA so permit) Authorization to charge any deficiency or credit any overpayment in the total fees indicated above</i>	Deposit Account No <u>26300413</u>	
	Date <u>2 February 2005</u>	
	Name <u>John A. Castellano</u>	
	Signature <u>[Signature]</u>	

119

PCT

GENERAL POWER OF ATTORNEY

(for several international applications filed under the Patent Cooperation Treaty)

(PCT Rule 90.5)

The undersigned person(s)

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country)

**COLGATE-PALMOLIVE COMPANY
908 River Road
Piscataway, New Jersey 08855**

hereby appoint(s) the following person(s) as:

☒ Agent
☐ Common Representative

Name and address

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

SUTER, David L. (Reg. No. 30,692) and each partner, attorney of counsel, associate and employee of Harness, Dickey & Pierce, P.L.C., who is a registered Patent Attorney of: (see attached)

**Harness, Dickey & Pierce, P.L.C.
P. O. Box 828
Bloomfield Hills, Michigan 48303
United States of America**

to represent the undersigned before

☒ all the competent International Authorities
☐ the International Searching Authority only
☐ the International Preliminary Examining Authority only

in connection with any and all international applications filed by the undersigned with the following Office:

United States Patent and Trademark Office as receiving Office and to make or receive payments on behalf of the undersigned.

Signature(s) of the applicants: (where there are several persons, each of them must sign, next to each signature, indicate the name of the person signing and the capacity in which the person signs, if such capacity is not obvious from reading the request or this power):



Date: 12/14/04

Name Typed: **Ellen K. Park**
Title: **Associate General Counsel & Chief Patent Counsel**
signing on behalf of **COLGATE-PALMOLIVE COMPANY**

X10 120

**Attachment to PCT Power of Attorney
ADDITIONAL LISTED AGENTS WITH HARNESS, DICKEY & PIERCE, P.L.C.**

AMBURN, Dean W., Reg. No. 46,517
AQUINO, Damian M., Reg. No. 54,964
BACON, Jr. Edwin W., Reg. No. 39,098
BARRY, Carol F., Reg. No. 41,600
BLAIR, Charles H., Reg. No. 19,734
BRENNAN, Michael P., Reg. No. 30,612
BROCK, Christopher M., Reg. No. 27,313
BROOKS, Jennifer S., Reg. No. 51,501
BUDDE, Anna M., Reg. No. 35,085
CANTOR, Bernard J., Reg. No. 17,336
COMNINO, Maria, Reg. No. 44,626
DESCHERE, Linda M., Reg. No. 34,611
DOBROWITSKY, Joshua B., Reg. No. 51,268
DOERR, Michael P., Reg. No. 52,825
DONLEY, Garrett C., Reg. No. 34,579
ELCHUK, Mark D., Reg. No. 33,666
ERJAVAC, Stanley A., Reg. No. 38,442
EUSEBI, Christopher A., Reg. No. 44,672
FALCOFF, Monte L., Reg. No. 37,617
FOSS, Stephen J., Reg. No. 31,251
FRENTROP, Mark A., Reg. No. 41,026
FULLER, III, Roland A., Reg. No. 31,160
HALLIN, Thomas A., Reg. No. 32,488
HARRIS, Jr., Gordon K., Reg. No. 28,515
HOLLIS, Brian D., Reg. No. 51,075
KELLER, Paul A., Reg. No. 29,752
KRUL, Thomas J., Reg. No. 46,642
LAFATA, Joseph M., Reg. No. 37,166
LANG, Michael J., Reg. No. 51,120
MACINTYRE, Timothy D., Reg. No. 42,824
MALINZAK, Michael, Reg. No. 43,770

MASSEY, Ryan W., Reg. No. 36,543
McCARTHY, Ryan P., Reg. No. 50,636
McCLAUGHRY, David A., Reg. No. 37,865
MILLER, H. Keith, Reg. No. 22,484
MILLER, J. Blair, Reg. No. 53,662
MOUSTAKAS, George D., Reg. No. 44,426
OLSON, Stephen T., Reg. No. 36,626
PAPP, Joseph R., Reg. No. 20,115
RETTIG, Philip E., Reg. No. 34,000
SCHIVLEY, G. Gregory, Reg. No. 27,382
SCHMIDT, Michael J., Reg. No. 34,007
SCHOOF, George T., Reg. No. 44,323
SCOTT, Mark S., Reg. No. 43,101
SEITZ, Brent G., Reg. No. 54,495
SIMINSKI, Robert M., Reg. No. 36,007
SNYDER, Jeffrey L., Reg. No. 43,141
STOBBS, Gregory A., Reg. No. 26,764
SUTER, David L., Reg. No. 30,692
SZALACH, Matthew H., Reg. No. 53,665
TAYLOR, Michael L., Reg. No. 50,521
TAYLOR, W.R. Duke, Reg. No. 31,306
URIAN, Jeffrey H., Reg. No. 46,232
UTYKANSKI, David P., Reg. No. 39,062
WADE, Bryant E., Reg. No. 40,344
WALKER, Donald G., Reg. No. 44,390
WALLACE, Robert J., Reg. No. 18,966
WARNER, Richard W., Reg. No. 36,043
WIGGINS, Michael D., Reg. No. 34,754
WOODSIDE, Jennifer M., Reg. No. 50,721
ZALOBsky, Michael D., Reg. No. 45,512

of Harness, Dickey & Pierce, P.L.C., P.O. Box 828, Bloomfield Hills, Michigan 48303, United States of America;

BURNS, Sarah S., Reg. No. 53,635
BURRIS, Kelly K., Reg. No. 46,361
CUTLER, Matthew L., Reg. No. 43,574
DAVIS, James E., Reg. No. 47,516
FUSSNER, Anthony G., Reg. No. 47,582
GRAY, Scott T., Reg. No. 48,891
GRYTE, David M., Reg. No. 41,809

HOWARD, David L., Reg. No. 41,502
NENOW, Lydia N., Reg. No. 52,530
O'DELL, Elizabeth D., Reg. No. 39,532
TELSCHER, Jr., Rudolph A., Reg. No. 36,032
THOMAS, Michael J., Reg. No. 39,657
WALSH, Jr., Joseph E., Reg. No. 36,959
WHELOCK, Bryan K., Reg. No. 31,441

of Harness, Dickey & Pierce, P.L.C., 7700 Bonhomme, Suite 400, St. Louis, Missouri 63105, United States of America; and

AUCHTERLONIE, Thomas S., Reg. No. 37,275
BRUMMETT, Gregory P., Reg. No. 41,646
CASTELLANO, III, John A., Reg. No. 35,094
CHO, David J., Reg. No. 48,078
CLARK, Terry L., Reg. No. 32,644
CURTIN, John E., Reg. No. 37,602
DALEY, Donald J., Reg. No. 34,313
HEFLIN, III, H. Ray, Reg. No. 41,060
LATTIG, Matthew J., Reg. No. 45,274
PATHAK, Ajay S., Reg. No. 38,268
YACURA, Gary D., Reg. No. 35,416

of Harness, Dickey & Pierce, P.L.C., 11730 Plaza America Drive, Suite 600, Reston, VA 20190, United States of America

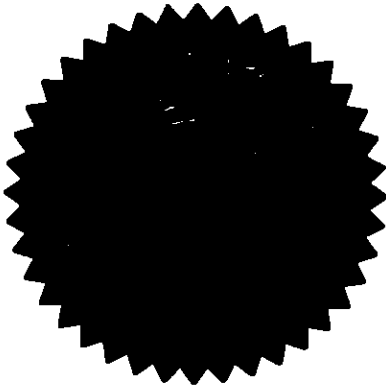
APOSTILLE

(CONVENTION DE LA HAYE DU 5 OCTOBRE 1961)

1. COUNTRY: UNITED STATES OF AMERICA
2. THIS PUBLIC DOCUMENT HAS BEEN SIGNED BY:
ELAINE M FLYNN
3. ACTING IN THE CAPACITY OF:
COUNTY CLERK
4. BEARS THE SEAL/STAMP OF:
COUNTY OF MIDDLESEX

CERTIFIED

5. AT TRENTON, NEW JERSEY
6. THE 26TH DAY OF AUGUST 2005
7. BY: John E McCormac, CPA, NEW JERSEY TREASURER
8. NO. A236735
9. SEAL/STAMP:
10. SIGNATURE



Handwritten signature of John E. McCormac, CPA, New Jersey Treasurer.

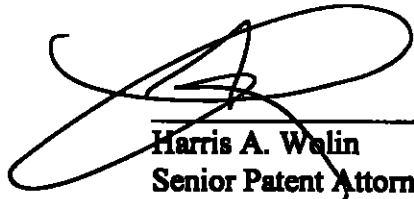
122

COUNTY OF MIDDLESEX

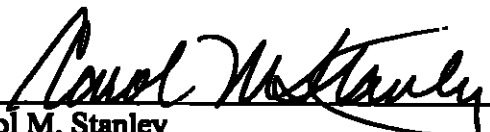
STATE OF NEW JERSEY

UNITED STATES OF AMERICA

I, Harris A. Wolin, of COLGATE-PALMOLIVE COMPANY, do hereby declare that the copy attached hereto is a true photocopy of the Assignment in support of U.S. Serial No. 10/406,123 filed April 3, 2003.


Harris A. Wolin
Senior Patent Attorney

Subscribed and sworn to
before me this 23 day
of August, 2005.


Carol M. Stanley
Notary Public of New Jersey
My Commission Expires November 18, 2005

Colambin

STATE OF NEW JERSEY }
County of Middlesex } ss.

123

I, ELAINE M. FLYNN, Clerk of the County of Middlesex, do hereby certify that

CAROL M STANLEY

whose name is subscribed to the annexed certificate or proof of acknowledgment of the annexed instrument was at the time of taking the same a

NOTARY PUBLIC OF NEW JERSEY

acting in and for said county, duly commissioned and sworn, and qualified to act as such; that as such

NOTARY PUBLIC OF NEW JERSEY

he was duly authorized by the laws of the State of New Jersey to take and certify depositions; to administer oaths and affirmations; to take affidavits and certify the acknowledgment and proof of deeds and other written instruments for lands, tenements and hereditaments to be read in evidence or recorded in this state; and further, that I am well acquainted with the handwriting of such

NOTARY PUBLIC OF NEW JERSEY

and verify that the signature to such proof or acknowledgment is genuine.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of the County of Middlesex, this 24 day
of AUGUST 20 05

Elaine M. Flynn
CLERK



124
23

ASSIGNMENT

WHEREAS, I (we), Marie Johansson, Josh Ghaim, Nadia Soliman (below referred to as ASSIGNOR(S)), residing, respectively, as set forth hereinafter, have made an invention for which application for Letters Patent of the United States is being filed herewith (was filed) in the United States Patent and Trademark Office as Application Serial No. 10/406,123, filed April 3, 2003, naming the ASSIGNOR(S) as an inventor, and entitled Composition; and

WHEREAS, Colgate-Palmolive Company, a corporation duly organized and existing under the laws of the State of Delaware, United States of America and having its principal office and place of business at 300 Park Avenue, New York, New York 10022, and offices and place of business at 909 River Road, Piscataway, New Jersey 08855 (below referred to as "ASSIGNEE"), is desirous of obtaining the entire right, title and interest in and to the aforesaid invention and patent application and corresponding patent rights worldwide;

NOW, THEREFORE, in consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNORS, by these presents do sell, assign and transfer to ASSIGNEE, the full and exclusive right, title and interest in and to the aforesaid invention, the aforesaid U.S. and all corresponding foreign patent applications, all divisional, continuation, continuation-in-part, reissue and reexamination applications of the aforesaid U.S. application, and all Letters Patent or comparable rights issuing thereon in the United States and in all foreign countries, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and the ASSIGNORS hereby authorize and request the U.S. Commissioner of Patents and Trademarks and all foreign Patent Offices to issue all Letters Patent or comparable rights issuing on any application as aforesaid to ASSIGNEE, or to its successors, assigns or legal representatives;

ASSIGNORS hereby covenant that ASSIGNORS have full right to convey the entire interest herein assigned, and that ASSIGNORS have not executed, and will not execute, any agreement in conflict herewith;

ASSIGNORS agree to communicate to ASSIGNEE or to its successors, assigns or legal representatives any and all facts known to them or any of them respecting said invention, and without further remuneration to testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and reexamination applications, make all rightful oaths and generally do all lawful acts to aid ASSIGNEE or its successors, assigns or legal representatives to obtain and enforce proper patent protection for said invention in all countries and to enhance or perfect ASSIGNEE's title in and to the invention and patent rights therein.

ASSIGNORS hereby authorize attorneys for ASSIGNEE to enter on this document any applicable serial numbers and filing dates after ASSIGNORS' execution of this document.

This Assignment is effective as of April 3, 2003
(Date of Filing)

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 3 day of April 2003.

Marie Johansson
Marie Johansson

Address: 22 East Drive
Watchung, NJ 07069

State of New Jersey
County of Middlesex

On this 3 day of April 2003, before me, a Notary Public in and for the State and County aforesaid, personally appeared the above signatory, known to me to be the person of that name, who executed the foregoing instrument in my presence.

MARIA V. LOGATTO
Notary Public of New Jersey
My Commission Expires 8/8/2005

Maria V. Logatto
NOTARY PUBLIC

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 3 day of April 2003.

Josh Ghaim
Josh Ghaim

Address: 89 Rachel Court
Franklin Park, NJ 08823

State of New Jersey
County of Middlesex

On this 3 day of April 2003, before me, a Notary Public in and for the State and County aforesaid, personally appeared the above signatory, known to me to be the person of that name, who executed the foregoing instrument in my presence.

MARIA V. LOGATTO
Notary Public of New Jersey
My Commission Expires 8/8/2005

Maria V. Logatto
NOTARY PUBLIC

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 3 day of
April 2003.

N. Sollman
Nadia Sollman

Address: 53 Race Track
East Brunswick, NJ 08816

State of New Jersey
County of Hudson

On this 3 day of April 2003, before me, a Notary Public in
and for the State and County aforesaid, personally appeared the above signatory, known to
me to be the person of that name, who executed the foregoing instrument in my presence.

MARIA V. LOGATTO
Notary Public of New Jersey
My Commission Expires 8/8/2005

Maria V. Logatto
NOTARY PUBLIC

Colgate-Palmolive Company accepts this Assignment.

COLGATE-PALMOLIVE COMPANY

By Paul Shapiro
Paul Shapiro, Vice President
Chief Patent Counsel

127
TRADUCCIÓN AL ESPAÑOL del la Apostilla y el documento de cesión de solicitud
de patente a Colgate-Palmolive Company, firmado por los cedentes y el
cesionario.

APOSTILLA

(Convención de La Haya del 5 de Octubre de 1961)

1. PAÍS: ESTADOS UNIDOS DE AMERICA
2. ESTE DOCUMENTO PÚBLICO HA SIDO FIRMADO POR:
ELAINE M. FLYNN
3. ACTUANDO EN CAPACIDAD DE:
FUNCIONARIO DEL CONDADO
4. LLEVA EL SELLO/TIMBRE DE:
CONDADO DE MIDDLESEX

CERTIFICADO

5. EN TRENTON, NEW JERSEY
6. EL 28 DE AGOSTO DE 2005
7. POR John E. McCormac, CPA, TESORERO DE NEW JERSEY
8. NO. A236735
9. SELLO/TIMBRE
10. FIRMA

John E. McCormac (Firma)

CONDADO DE MIDDLESEX

ESTADO DE NEW JERSEY

ESTADOS UNIDOS DE AMERICA

Yo, Harris A. Wolin, de COLGATE-PALMOLIVE COMPANY, declaro que las copias anexas al presente son fotocopias verdaderas de la cesión como base de U.S. número de serie provisional 10/406,123 presentada el 3 de abril de 2003.

(Firma)

Harris A. Wolin

Abogado principal de patentes

Suscrito y jurado

Ante mí este 23

de agosto de 2005.

Carol M. Stanley (Firma)

Carol M. Stanley

Notario Público de New Jersey

Mi comisión expira el 18 de Noviembre de 2005.

ESTADO DE NEW JERSEY

Condado de Middlesex

Yo, Elaine M. Filnn, Funcionario del Condado de Middlesex, certifico que

CAROL M. STANLEY

Cuyo nombre aparece suscrito al certificado de prueba de reconocimiento del instrumento adjunto era al momento de tomar el mismo un

NOTARIO PUBLICO DE NEW JERSEY

Actuando en y para dicho condado, debidamente comisionada y juramentada, y calificada para actuar como tal; que como tal

NOTARIO PUBLICO DE NEW JERSEY

Estaba debidamente autorizada por las leyes del Estado de New Jersey para tomar y certificar declaraciones; para administrar juramentos y promesa solemnes; para tomar declaraciones juradas por escrito y certificar el reconocimiento y la prueba de instrumentos jurídicos y otros instrumentos escritos para tierras, arrendamientos y herencias ser leídos como evidencia o registrados en este estado; y además, que estoy familiarizada con la firma de tal

NOTARIO PUBLICO DE NEW JERSEY

Y verifico que la firma de tal prueba o reconocimiento es genuina.

EN TESTIMONIO DE LO CUAL, es firmado el presente y fijado el sello del Condado de Middlesex este 29 de agosto de 2005.

Elaine M. Filnn (Firma)

CESION

124

CONSIDERANDO QUE, yo (nosotros), Marie Johansson, Josh Ghalm, Nadia Soliman (referidos debajo como CEDENTE(S)), quienes residimos, respectivamente, como se establece más adelante, hemos hecho una invención para la cual se presenta (se presentó) solicitud de patente de los Estados Unidos en la Oficina de Marcas y Patentes de los Estados Unidos como solicitud con número de serie 10/406,123, presentada el 3 de abril de 2003, nombrando a los CEDENTES como inventores, y titulada Composición; y

CONSIDERANDO QUE, Colgate-Palmolive Company, una corporación debidamente organizada y existente bajo las leyes del Estado de Delaware, Estados Unidos de América y que tiene sus oficinas principales y lugar de operación en 300 Park Avenue, New York, New York 10022, y oficinas y lugar de operación en 909 River Road, Piscataway, New Jersey 08855 (referido debajo como CESIONARIO), tiene deseos de obtener la totalidad del derecho, título e intereses en y para la invención y solicitud de patente mencionadas arriba y los correspondientes derechos de patente alrededor del mundo.

AHORA, POR LO TANTO, en consideración de la consideración buena y valiosa, el recibo y la suficiencia de la cual se reconocen, los CEDENTES, por la presente venden, ceden y transfieren al CESIONARIO el derecho, título e interés completo y exclusivo en y para la invención arriba mencionada, la solicitud de patente de los Estados Unidos arriba mencionada y todas las solicitudes de patente extranjeras correspondientes, todas las solicitudes de división, continuación, continuación parcial, reemisión y reexaminación de la solicitud de patente de los estados Unidos arriba mencionada, y todas las Patentes o derechos comparables emitidos sobre la misma en los Estados Unidos y en todos los países extranjeros, junto con el derecho de prioridad bajo la Convención Internacional para la Protección de la Propiedad Industrial, la Convención Interamericana Relacionada con las Patentes, Diseños y Modelos Industriales, y cualquier otro acuerdo internacional a los cuales se adhieran los Estados Unidos de América, y los CEDENTES autorizan y solicitan al Comisionado de Marcas y Patentes de los Estados Unidos y a todas las oficinas Extranjeras de Patentes a emitir Patentes o derechos comparables emitidos sobre cualquier solicitud al arriba mencionado CESIONARIO, o sus sucesores, cesionarios o representantes legales;

Los CEDENTES acuerdan que los CESIONARIOS tienen pleno derecho para comunicar la totalidad del interés aquí cedido, y los CEDENTES no han ejecutado, y no ejecutarán, ningún acuerdo en conflicto con el presente;

Los CEDENTES acuerdan comunicar al CESIONARIO o a sus sucesores, cesionarios o representantes legales cualquiera y todos los hechos conocidos por ellos o por cualquiera de ellos respecto a dicha invención, y sin remuneración adicional testificar en cualquier proceso legal, firmar todos los papeles legales, ejecutar todas la solicitudes de división, continuación, continuación parcial, reemisión y reexaminación, hacer todos los juramentos correctos y en general hacer todos los actos legales para ayudar al CESIONARIO o sus sucesores, cesionarios o representantes legales a obtener y hacer valer la protección de patente para dicha invención en todos los países y a mejorar o perfeccionar el derecho del CESIONARIO en y para la invención y los derechos de patente de la misma.

Los CEDENTES autorizan a los abogados del CESIONARIO a incluir en este documento cualquier número de serie o fecha de solicitud después de la ejecución del documento por parte de los CEDENTES.

**Esta cesión es efectiva a partir de: abril 3 de 2003.
(Fecha de presentación)**

130

EN TESTIMONIO DE LO CUAL, yo pongo mi firma y sello este 3 de abril de 2003.

(Firma)
Marie Johansson

Dirección: 22 East Drive
Watchung, NJ 07089

Estado de New Jersey

Condado de Middlesex

Este 3 de abril de 2003, ante mí, un Notario Público en y para el Estado y Condado referenciados arriba, apareció personalmente el arriba firmante, a quine conozco como la persona de ese nombre, quien ejecutó el instrumento anterior en mi presencia.

[Sello] [MARIA V. LOGATTO]
[NOTARIO PÚBLICO DE NEW JERSEY]
[MI COMISIÓN EXPIRA 8/8/2005]

(Firma)
NOTARIO PUBLICO

EN TESTIMONIO DE LO CUAL, yo pongo mi firma y sello este 3 de abril de 2003.

(Firma)
Josh Ghaim

Dirección: 89 Rachel Court
Franklin Park, NJ 08823

Estado de New Jersey

Condado de Middlesex

Este 3 de abril de 2003, ante mí, un Notario Público en y para el Estado y Condado referenciados arriba, apareció personalmente el arriba firmante, a quine conozco como la persona de ese nombre, quien ejecutó el instrumento anterior en mi presencia.

[Sello] [MARIA V. LOGATTO]
[NOTARIO PÚBLICO DE NEW JERSEY]
[MI COMISIÓN EXPIRA 8/8/2005]

(Firma)
NOTARIO PUBLICO

131

EN TESTIMONIO DE LO CUAL, yo pongo mi firma y sello este 3 de abril de 2003.

(Firma)
Nadia Soliman

Dirección: 53 Race Track
East Brunswick, NJ 08816

Estado de New Jersey

Condado de Middlesex

Este 3 de abril de 2003, ante mí, un Notario Público en y para el Estado y Condado referenciados arriba, apareció personalmente el arriba firmante, a quine conozco como la persona de ese nombre, quien ejecutó el instrumento anterior en mi presencia.

[Sello] [MARIA V. LOGATTO]
[NOTARIO PÚBLICO DE NEW JERSEY]
[MI COMISIÓN EXPIRA 8/8/2005]

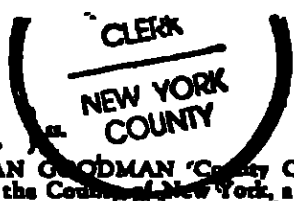
(Firma)
NOTARIO PUBLICO

Colgate-Palmolive Company acepta esta cesión

COLGATE PALMOLIVE COMPANY

Por: _____ (Firma)
Paul Shapiro, Vicepresidente
Abogado en jefe de patentes

132



252373

Form 1-

New York
County of New York

I, NORMAN GOODMAN, County Clerk and Clerk of the Supreme Court of the State of New York, in and for the County of New York, a Court of Record, having by law a seal, DO HEREBY CERTIFY pursuant to the Executive Law of the State of New York, that

Rosie S. Dizon

whose name is subscribed to the annexed affidavit, deposition certificate of acknowledgment or proof, was at the time of taking the same a NOTARY PUBLIC in and for the State of New York duly commissioned, sworn and qualified to act as such; that pursuant to law a commission or a certificate of his official character, with his autograph signature has been filed in my office; that at the time of taking such proof, acknowledgment or oath, he was duly authorized to take the same; that I am well acquainted with the handwriting of such NOTARY PUBLIC or have compared the signature on the annexed instrument with his autograph signature deposited in my office, and I believe that such signature is genuine.

IN WITNESS WHEREOF I have hereunto set my hand affixed my official seal this

OCT 30 2001

FEE PAID \$3.00

Norman Goodman
County Clerk and Clerk of the Supreme Court, New York County



Apostille

133

(Convention de La Haye du 5 Octobre 1961)

1 Country **United States of America**

This public document

2 has been signed by **Norman Goodman**

3 acting in the capacity of **County Clerk**

4 bears the seal/stamp of the county of **New York**

Certified

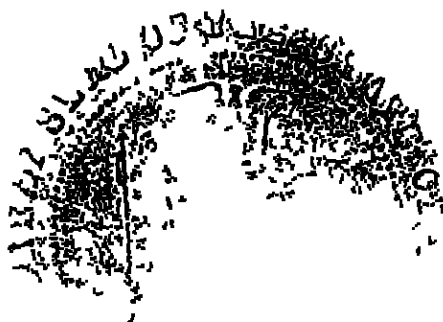
5 At New York, New York 6 the 30th day of October 2001

7 by Special Deputy Secretary of State, State of New York

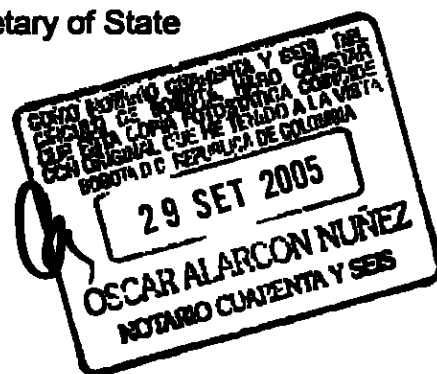
8 No NYC-9786540B

9 Seal/Stamp

10 Signature



Aqil M. Qureshi
Special Deputy Secretary of State



Brigard & Castro

SANTA FE DE BOGOTA - COLOMBIA

PODER

POWER OF ATTORNEY

Yo (nosotros)

domiciliado(s) en

Nombre(amos) a RAMIRO CASTRO DUQUE y/o JUAN PABLO CADENA SARMIENTO y/o BEATRIZ JARAMILLO S

de Santafé de Bogotá Colombia, apoderados verdaderos y legales con poder especial amplio y suficiente para recabar de las oficinas y autoridades colombianas administrativas, judiciales y de policía en cualquier instancia o recurso la obtención de patentes de invención registros de marcas diseños industriales modelos de utilidad depósitos de nombres comerciales y ensaños registros de derechos de autor y contratos sobre los mismos obtención de certificados de obtentor de variedades vegetales así como sus prórrogas renovaciones, anotaciones de traspaso cambios de nombre y/o domicilio elaborar tramitar y registrar contratos de licencia y licencias de cuasititular clases intervenir como demandante o como demandado en cualquier instancia y recurso ante cualquier juez, corporación, funcionario público o autoridad en acciones judiciales administrativas y de policía tales como oposiciones al registro de marcas acciones de caducidad cancelación y nulidad acciones reivindicatorias acciones derivadas de la obtención o explotación de licencias acciones de competencia desleal demandas penales, acciones de indemnización de perjuicios reclamos y observaciones a solicitudes de patentes diseños industriales, modelos de utilidad en el ejercicio de medidas cautelares y en otras acciones o medidas similares

A este efecto lo(s) faculto(amos) para elevar solicitudes, formular descripciones, enmiendas protestas declaraciones, oposiciones cancelaciones nulidades apelaciones y reclamos, pagar impuestos cuotas y gravámenes prescritos por la ley renunciar o desistir a derechos concedidos o en curso de concesión recibir toda clase de documentos y valores dando el descargo respectivo y en general para dar ante dichas autoridades todos los pasos necesarios al efecto indicado y tomar todas las medidas que creyeren conducentes al resguardo de mis (nuestros intereses) con todas las demás facultades legales necesarias

Este poder comprende la facultad de ratificar o confirmar en mi (nuestro) nombre lo actuado así como la facultad de desistir transigir, comprometer y la de sustituirlo en todo o en parte y revocar sustituciones Asimismo nombro(amos) a RAMIRO CASTRO DUQUE y/o JUAN PABLO CADENA SARMIENTO y/o BEATRIZ JARAMILLO S de la Carrera 7 No 16 56 Piso 9 mi (nuestro) apoderados en Colombia con facultades para recibir notificaciones y designar apoderados judiciales o extrajudiciales

Otorgado y firmado en

hoy de

Firma

Nombre

I (We)

COLGATE-PALMOLIVE COMPANY, a Delaware corporation, of 300 Park Avenue, New York, New York 10022, U. S. A.

Hereby appoint RAMIRO CASTRO DUQUE and/or JUAN PABLO CADENA SARMIENTO and/or BEATRIZ JARAMILLO S

of Santafé de Bogotá Colombia my (our) true and lawful attorneys with special ample and sufficient power to obtain from the Colombian administrative, judicial and police offices and authorities, in any instance privileges of patents of invention registration of trademarks industrial designs and utility models registration of copyright and contracts related thereto certificates of obtainers of vegetables varieties, as well as extensions renewals and records of assignments and changes of name and domicile related to the above to prepare prosecute and register licenses of any kind to act as plaintiff or defendant in any instance or recourse and before any judge corporation public official or authority in judicial administrative and police actions such as oppositions to the registration of trademarks caducity cancellation and nullity actions claim actions derived from the obtaining or exploitation of licenses action of unfair competition penal demands actions of indemnities for damages claims or observations on patent applications, models, industrial designs and utility models in the exercise of preventive measures and in other actions or similar proceedings

To that effect they are hereby empowered to file applications formulate descriptions amendments, protests declarations, oppositions cancellations, nullities, appeals and claims to pay taxes quotas and assessments prescribed by law renounce or waive the rights granted or in the process of granting to receive all kind of documents and valuables giving the respective release of receipt and in general to take before said authorities the necessary steps to such effect, and any measures that they may deem pertinent to the safeguard of my (our) interest(s) with all the other necessary legal powers

This power includes the faculty to ratify or confirm deeds, ratify and compromise on my (our) behalf and to exercise this power in whole or in part and to substitute the undersigned At the same time I (We) hereby appoint RAMIRO CASTRO DUQUE and/or JUAN PABLO CADENA SARMIENTO and/or BEATRIZ JARAMILLO S of the Carrera 7 No 16 56 Piso 9 my (our) attorneys with powers to receive notifications and to designate judicial and extrajudicial attorneys

Graced and signed in New York, N.Y.

this OCT 29 2001 day of 2001

Signature

Name

VICE PRESIDENT
ASSOCIATE GENERAL COUNSEL
TRADEMARK

Signature *[Signature]*

Name

CERTIFICADO NOTARIAL (SOCIEDAD)

NOTARIAL CERTIFICATE (CORPORATION)

135

Hoy de de
personalmente compareció ante mí

a quien conozco, y de quien me consta que firmó el
anterior documento, debidamente juramentado declaró
y dijo que él es

de

Sociedad legalmente constituida para un período de
duración que aún no ha terminado; que el declarante
está autorizado por dicha compañía para conferir este
poder; que el sello estampado por él a pie de tal poder,
en nombre y representación de la expresada compañía,
es el sello oficial de ella; y que el objeto para el cual se
confiere este instrumento está comprendido dentro del
de la sociedad.

El suscrito Notario hace constar que tuvo a la vista las
actas de la existencia de la sociedad.

Estado de
con fecha

y que quien confiere el presente poder es su
representante.

On this OCT 29 day of of
personally appeared before me

to me known, and known to me to be the person who
signed the foregoing instrument who being by me duly
sworn did depose and say that he (she) is the

SCOTT E THOMPSON
VICE PRESIDENT &
ASSOCIATE GENERAL COUNSEL
TRADEMARK
COLGATE-PALMOLIVE COMPANY

Which is legally constituted for a term not yet expired,
that deponent is authorized by said Company to confer
this Power of Attorney; that the seal affixed hereunto
by the deponent in the name and on behalf of said
Corporation is the corporate seal thereof; and that the
purpose for which this instrument is granted is
included within the corporate purpose of company.

The undersigned Notary Public attests that he has seen
the documents that prove the existence of the
company.

State of Delaware
under date of May 13, 1997

and that he (and) who grants the present power of
attorney is its Representative.

Notario Público (sello)

Rosie S. Dizon
Notary Public (Seal)

**CERTIFICADO NOTARIAL
PERSONA NATURAL**

ROSIE S. DIZON
Notary Public, State of New York
No. 31-494117
Qualified in New York County
Commission Expires Aug. 15, 2002

COUNTY

Hoy de de , comparecieron
ante mí

On this OCT 29 day of of
personally appeared before me

SCOTT E THOMPSON

a quien (es) conozco y me consta que es(son) la(s)
persona(s) firmante(s) del documento que precede y
quien(es) declara(n) que otorgan el mismo para los
fines y propósitos que en él se expresan.

who is(are) known to me and who I attest executed
the foregoing document; and he (they) declare(s) he
(they) grant(s) the document for the uses and purposes
expressed.

Notario Público (sello)

29 SET 2005
OSCAR ALARCON NUNEZ
NOTARIO PUBLICO Y SEES

Rosie S. Dizon
Notary Public (Seal)

LEGALIZACION POR APOSTILLA ES REQUERIDA.

ROSIE S. DIZON
Notary Public, State of New York
No. 31-494117
Qualified in New York County
Commission Expires Aug. 15, 2002

136

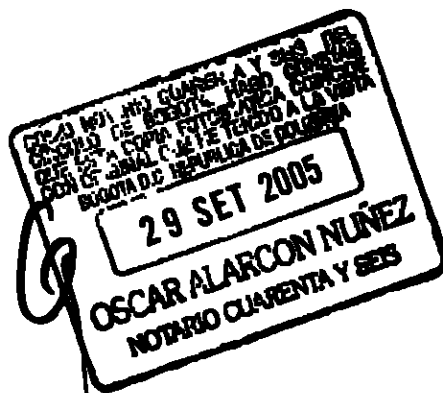
APOSTILLE

(Convencion de La Haya del 5 de Octubre de 1961)

- 1 País ESTADOS UNIDOS DE AMERICA**
Este documento publico
- 2 ha sido firmado por Norman Goodman**
- 3 actuando en capacidad de Oficial del Condado**
- 4 lleva el sello/timbre del condado de New York**

CERTIFICADO

- 5 en New York, New York**
- 6 el 30 de Octubre de 2001**
- 7 por Secretario de Estado Encargado Especial, Estado de New York**
- 8 No NYC-9786540B**
- 9 Sello/Timbre**
- 10 Firma**
(Firma)
Aquil M. Qureshi
Secretario de Estado Encargado Especial



13X

Estado de New York)
) ss
Condado de New York)

Yo, NORMAN GOODMAN, Oficial del Condado y Oficial de la Corte Suprema del Estado de New York, en y para el Condado de New York, un Tribunal de Registros, que tiene un sello por ley

Rosie S Dizon

cuyo nombre está suscrito al acta notarial, deposición, certificado de reconocimiento o prueba, era al momento de tomar el mismo NOTARIO PUBLICO en y para el Estado de New York debidamente comisionado, juramentado y calificado para actuar como tal, que de acuerdo con la ley, una comisión o un certificado de este carácter oficial, con su firma autógrafa ha sido presentada en mi oficina, que al momento de tomar tal prueba, reconocimiento o juramento, estaba debidamente autorizado para tomar el mismo, que estoy bien familiarizado con la escritura de tal NOTARIO PUBLICO o he comparado la firma en el instrumento anexo con la firma autógrafa depositada en mi oficina, y creo que tal firma es genuina

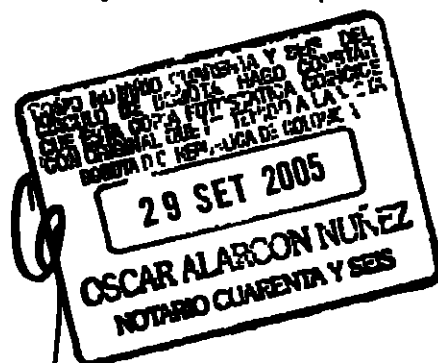
CÓMO TESTIGO DE LO MISMO, he fijado al presente mi firma t mi sello oficial este

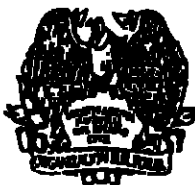
30 de Octubre de 2001

TARIFA PAGADA \$3 00

(Firma)

Oficial del Condado y Oficial de la Corte Suprema Condado de New York





GAVIRI A

138

ORGANIZACION ELECTORAL
REGISTRADURÍA NACIONAL DEL ESTADO CIVIL

REGISTRO CIVIL DE DEFUNCIÓN

Indicativo 5562241
Serial

Datos de la oficina de registro									
Clase de oficina	Registraduría	Notaría	☒	Consulado	Corregimiento	Insp de Policía	Código	9795	
País Departamento Municipio Corregimiento de Inspección de Policía									
COLOMBIA CUNDINAMARCA BOGOTA D.C. NOTARIA 32.									

Datos del inscrito	
Apellidos y nombres completos	
CASTRO DUQUE RAMIRO	
Documento de identificación (Clase y número)	Sexo (en Letras)
C.C.No. 170322 DE BOGOTA	MASCULINO

Datos de la defunción			
Lugar de la Defunción País Departamento Municipio Corregimiento de Inspección de Policía			
COLOMBIA CUNDINAMARCA BOGOTA D.C.			
Fecha de la defunción		Hora	Número de certificado de defunción
Año 2004 Mes 10 Día 30	04:10 PM	A- 2094375.	
Presunción de muerte		Fecha de la sentencia	
Juzgado que profiere la sentencia		Año Mes Día	
Documento presentado		Nombre y cargo del funcionario	
Autorización judicial ☐ Certificado Médico ☒		ANDRES DIAZ CAMPOS.- R.M. No. 79982662	

Datos del denunciante	
Apellidos y nombres completos	
EUGAR DAVID REGINO II.	
Documento de identificación (Clase y número)	Firma
C.C.No. 15.030.154 DE LORICA/ CORDOBA	

Primer testigo	
Apellidos y nombres completos	
Documento de identificación (Clase y número)	
Firma	

Segundo testigo	
Apellidos y nombres completos	
Documento de identificación (Clase y número)	
Firma	

Fecha de inscripción		Notario y firma del notario que inscribe
Año 2004 Mes 10 Día 02		BLANCA REYES RESTREPO NOTARIA 32

PADRES: ALFONSO CASTRO		ESPACIO PARA NOTAS
MERCEDES DUQUE.		

ORIGINAL PARA LA OFICINA DE REGISTRO

NOTARIA 32

DEL CIRCULO DE SANTA FE DE BOGOTA, D.C

Germán Eleázar Moreno L.
Notario

COMO SECRETARIO DELEGADO DE LA NOTARIA TREINTA Y DOS (32) DEL
CIRCULO DE BOGOTA

CERTIFICO, QUE:

La presente acta es fiel copia del original tomada del registro
civil de defunciones serial indicativa número: 556224
que expido en la ciudad de Bogotá D.C. hoy: 05 NOV 2004

NOTARIA 32 DEL
CIRCULO DE BOGOTA D.C.
NELSON FLORES
SECRETARIO DELEGADO

NELSON FLORES
SECRETARIO DELEGADO PARA COPIAS
DECRETO 1334 DE 1998

139

REQUISITOS NECESARIOS PARA PRESENTACION Y AGILIZACION DEL TRAMITE

	USUARIO	RADICADOR
PATENTE DE INVENCION ✓	()	() ✓
MODELO DE UTILIDAD	()	() ✓
- Indicación de que se solicita la concesión de una patente	()	() ✓
- Datos de identificación del solicitante o de la persona que se presenta la solicitud.	()	() ✓
- Descripción de la invención	()	() ✓
- Dibujos de ser estos pertinentes.	()	() ✓
- Comprobante de Pago de las tasas establecidas	()	() ✓
COMPLETA () ✓	INCOMPLETA ()	()
DISEÑO INDUSTRIAL ()		
- Indicación de que se solicita el registro de Diseño Industrial	()	()
- Datos de identificación del solicitante o de la persona que presenta la solicitud	() ✓	()
- Representación gráfica o fotografías del Diseño Industrial o muestra del Material que incorpora el diseño	()	()
- Comprobante de pago de las tasas establecidas	()	()
COMPLETA ()	INCOMPLETA ()	()
ESQUEMA DE TRAZADO ()		
- Indicación de que solicita el registro de un Esquema de trazado	()	()
- Datos de identificación del solicitante o de la persona que presenta La solicitud	()	()
- Representación gráfica del esquema de trazado	()	()
- Comprobante de pago de las tasas establecidas	()	()
COMPLETA ()	INCOMPLETA ()	()

Firma Responsable



Fecha

139
140

REPUBLICA DE COLOMBIA
SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

Bogotá,
2020

Doctor(a)
CADENA SARMIENTO JUAN PABLO
Apoderado(a) y/o Representante de
COLGATE PALMOLIVE COMPANY

REFERENCIA	Radicación No.	5 108124
	Solicitud internacional	US2004/010032
	Fecha inicio fase nacional	03/11/2005
	Trámite	11
	Evento	379
	Actuación	430
	Oficio No.	2895

Como resultado del examen de forma, realizado con fundamento en el artículo 38 de la Decisión 486 de la Comisión de la Comunidad Andina, artículo 27 del Tratado de Cooperación en Materia de Patentes (PCT), regla 51 bis del Reglamento y Circular Única de la Superintendencia de Industria y Comercio, se le comunica que:

1. El solicitante deberá presentar la traducción del capítulo reivindicatorio enmendado.

En cumplimiento de lo dispuesto por el artículo 39 de la Decisión 486, se le requiere para que dentro del término de dos meses siguientes a la fecha de notificación del presente oficio, complete los requisitos anteriormente enunciados. En caso de no dar cumplimiento al presente requerimiento, la solicitud se considerará abandonada y perderá su prelación.

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.


ALIX CARMENZA CESPEDES DE VERGEL
Jefe de la división de Nuevas Creaciones

El anterior requerimiento fue notificado por fijación en lista de
fecha 10 MAR. 2006
adpall