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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



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División de Nuevas Creaciones

PCT
SOLICITUD

PATENTE DE INVENCION

ENTRADA EN FASE NACIONAL

21. EXPEDIENTE No.

05-988880

54. TITULO DESODORANTE EN AEROSOL CON POLIAMIDA

51. CLASIFICACION INTERNACIONAL

A61K 7/00, 7/32

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.

PETITORIO

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FORMULARIO ÚNICO DE SOLICITUD DE PATENTE PCT

ENTRADA EN FASE NACIONAL 04-10-05

1

SOLICITUD DE:

☒ Patente de Invención.

☐ Patente de Modelo de Utilidad.

☐ Capítulo I.

☒ Capítulo II.

2

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(71)**

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Estados Unidos de América

Nacionalidad o Domicilio: Estados Unidos

Lugar de Constitución: Estados Unidos

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IDENTIFICACION

C.C. ☐ NIT ☐

C.E. ☐ Otro ☐

Cual _____

Número _____

3

**REPRESENTANTE
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IDENTIFICACION

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Número 80.410.337 TP 57492

4

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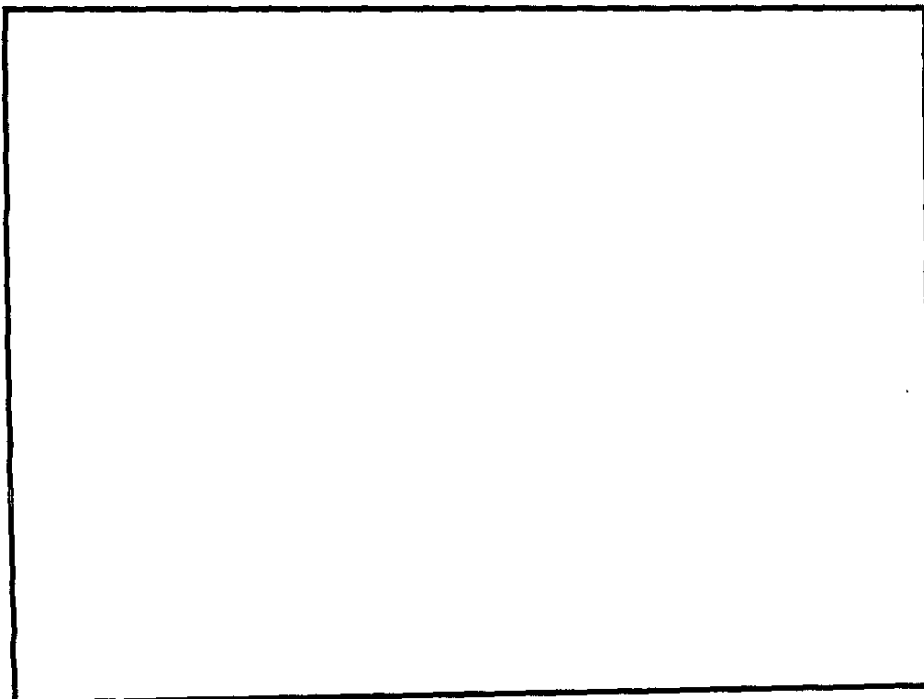
Instrucciones para el diligenciamiento del presente formulario, ver reverso de esta página.

10

ANEXOS

- ☒ Comprobante de pago de la tasa de presentación de la solicitud. \$443.000
- ☒ Documento que acredita la existencia y representación legal cuando el solicitante sea persona jurídica.
- ☒ Poderes, si fuere el caso. **Fotocopia autenticada**
- ☒ Documento de cesión del inventor al solicitante o a su causante.
- ☐ Declaraciones.
- ☒ Copia de la solicitud internacional. (Resumen, descripción, reivindicaciones, dibujos)
- ☒ Traducción de la solicitud internacional al castellano. (Resumen, descripción, reivindicaciones, dibujos)
- ☐ Copia del examen preliminar efectuado por la IPEA.
- ☐ Traducción 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 autorización de uso de conocimientos tradicionales de las comunidades indígenas.
- ☐ De ser el caso, certificado de depósito del material biológico.
- ☐ Arte final 12x12.
- ☐ De ser el caso, información sobre otras solicitudes de patente o títulos obtenidos en el extranjero por el mismo titular o su causante, relacionadas parcial o totalmente con la invención de esta solicitud.
- ☒ Otros: Tarjeta de Propietarios

11 FIGURA CARACTERÍSTICA:



12 Solicito a concesión de la patente.

NOMBRE: JUAN PABLO CADENA SARMIENTO

FIRMA:

Juan Pablo Cadena Sarmiento

C.C. 80.410.337 de Usaquén TP 57492 del C.S.J.

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NIT : 800176089-2

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FECHA : AGOSTO 16 DE 2005

***** C O N S I G N A C I O N *****

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BRIGARD & CASTRO LTDA	CONSIGNACION	BANCO POPULAR	050-00110-6	32947198	12/08/2005	24,970,000.00

***** C O N C E P T O *****

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 : _____

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES

PATENTE ☒ PCT/US2004/006164 MODELO DE UTILIDAD ☐ DISEÑO INDUSTRIAL ☐

SOLICITANTES/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 DESODORANTE EN AEROSOL CON POLIAMIDA

CLASIFICACION

EXPEDIENTE No. FECHA DE SOLICITUD ROLLO MICROFILM

CERTIFICADO No. FECHA DE CONCESION VIGENCIA DESDE HASTA

PRORROGA CAMBIO DE NOMBRE

TRASPASO A

INVENTOR (ES) ANTHONY ESPOSITO, AIXING FAN

OTROS

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16 September 2004 (16.09.2004)

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7/32, 7/34, 7/36, 7/38

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(71) Applicant (for all designated States except US): **COL-
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Avenue, New York, New York 10022 (US).**

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ESPOSITO, An-
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sey 07203 (US). FAN, Aiding [CN/US]; 44 Reinhart Way,
Bridgewater, New Jersey 08807 (US).**

(74) Agent: **MIANO, Rosemary, M.; 909 River Road, Piscat-
away, NJ 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, HT, HU, 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,
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For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
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(54) Title: **AEROSOL ANTIPERSPIRANT WITH POLYAMIDE**

(57) Abstract: An aerosol antiperspirant/deodorant comprising: (a) a solvent system for the gellant in an amount of up to 36% of the total formula; (b) from 0.1 - 1.5% by weight based on the total weight of the composition of at least one siliconized polyamide as a gellant; (c) an antiperspirant active used in an amount to have a deodorant and/or antiperspirant effect; and (d) a propellant gas.

WO 2004/078125 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/06164

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 7/00, 7/32, 7/34, 7/36, 7/38

US CL : 424/65, 66, 67, 68, 400, 401

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)

U.S. : 424/65, 66, 67, 68, 400, 401

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST, WEST, DIALOG, CAS ONLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,451,295 B1 (CAI ET AL.) 17 SEPTEMBER 2002, SEE ENTIRE DOCUMENT.	1-9
A	US 6,342,210 B1 (CAI ET AL.) 29 JANUARY 2002, SEE ENTIRE DOCUMENT.	1-9
A	US 5,874,069 A (MENDOLIA ET AL.) 23 FEBRUARY 1999, SEE ENTIRE DOCUMENT.	1-9

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	
A document defining the general state of the art which is not considered to be of particular relevance	*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
E earlier application or patent published on or after the international filing date	*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
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)	*Y* documents 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
O document referring to an oral disclosure, use, exhibition or other means	*Z* document member of the same patent family
P document published prior to the international filing date but later than the priority date claimed	

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Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

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- (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application: US 60/451,282 (CIP) Filed on 4 March 2003 (04.03.2003)
- (71) Applicant (for all designated States except US): COL-GATE-PALMOLIVE COMPANY [US/US]; 300 Park Avenue, New York, New York 10022 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): ESPOSITO, Anthony [US/US]; 414 East Third Avenue, Roselle, New Jersey 07203 (US). FAN, Aixing [CN/US]; 44 Reinhart Way, Bridgewater, New Jersey 08807 (US).

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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: AEROSOL ANTIPERSPIRANT WITH POLYAMIDE

(57) Abstract: An aerosol antiperspirant/deodorant comprising: (a) a solvent system for the gellant in an amount of up to 36% of the total formula; (b) from 0.1 - 1.5% by weight based on the total weight of the composition of at least one siliconized polyamide as a gellant; (c) an antiperspirant active used in an amount to have a deodorant and/or antiperspirant effect; and (d) a propellant gas.

WO 2004/078125 A2

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AEROSOL ANTIPERSPIRANT WITH POLYAMIDE**Field of the Invention**

5 This invention relates to aerosol compositions that have improved properties. These improvements include easier manufacturing control and reproducibility. The manufactured products help alleviate hard packing of the antiperspirant active to the bottom of the can. This ensures that the active ingredient is dispensed evenly when the product is used.

Background of the Invention

10 Selected polyamides as gellants have been disclosed in previous cases owned by the same owner as this invention. It has now been found that this material can advantageously be used in aerosol compositions under certain conditions.

Brief Summary of the Invention

15 The invention comprises an aerosol product comprising:
(a) about 2 - 20 weight % cyclomethicone (especially 5%) (particularly D5, D6 or mixtures of D5 and D6);
(b) about 1 - 8 weight % isopropyl palmitate (especially 2.2%);
20 (c) about 0.5 - 3.5 weight % mineral oil (especially 0.7%);
(d) about 0.3 - 4 weight % isostearyl alcohol (especially 0.6 %);
(e) about 0.1 - 1.5 weight % Nylon 611/dimethicone copolymer (especially 0.3%);
(f) about 5 - 25 weight % of a solid antiperspirant active (especially 10%);
(g) optionally about 0.3 - 2.0 weight % of a perfume oil (especially 1.0%); and
25 (h) about 37- 90 weight % of a propellant gas (especially 83%);
wherein the amounts are based on the total weight of the composition.

Detailed Description of the Invention

The aerosol formulation is made from:

30 (a) a solvent system for the gellant in an amount of up to 36% of the total formula, wherein the solvent system is compatible with the siliconized polyamide and the solvent system comprises one or more members is selected from the group consisting of:

(1) from 1.5 - 16% by weight based on the total weight of the composition of at
35 least one non-silicone organic material selected from the group consisting of C12 - 36

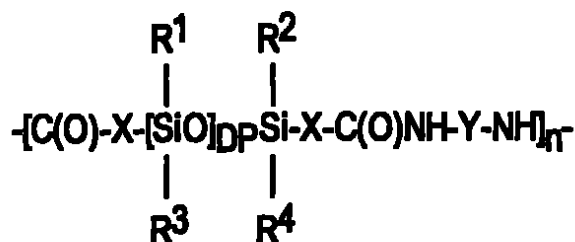
esters (for example, tridecyl neopentanoate, ethyl oleate, dioctyl carbonate, isopropyl palmitate, octyl methoxycinnamate); extra light to heavy white mineral oils with viscosity ranging from 6.5 - 110 centistokes at 40 degrees C; guerbet alcohols having 8 - 30 carbons; fatty alcohols having 8 - 30 carbons; ethoxylated and propoxylated alcohols having 3 - 30 carbons (for example, PPG-14 butyl ether, and PPG-3 myristyl ether); alkyl ethers having 12 - 36 carbons (for example, dioctyl ether); C12 - 18 alkyl benzoate and benzoate ester derivatives (for example, C12-15 alkyl benzoate, isostearyl benzoate and octyl dodecyl benzoate, octyl salicylate); and paraffins having a distillation temperature in the range of 372 - 426 degrees C; isoparaffins having a distillation temperature in the range of 178 - 207 degrees C; alkyl carbonates (for example, dioctyl carbonate);

(2) from 2 - 20% by weight based on the total weight of the composition of a volatile silicone selected from the group consisting of cyclomethicone and low viscosity dimethicones (for example, Dow Corning 200 Fluid/2 centistokes or less from Dow Corning, Midland, MI); and

(3) from 0-10% organo-silicones such as phenyl trimethicone.

This solvent system consists of one or more of the above listed ingredients. The solvent system also allows the compositions of the invention to be processed at lower temperatures (for example, temperatures in the range of about 60 to 90 degrees C or lower).--This is important in reducing the evaporation of volatile materials from the composition during manufacturing and processing. It should also be noted that many of the solvents described have emollient characteristics in the overall formula.

(b) from 0.1 - 1.5% by weight based on the total weight of the composition of at least one siliconized polyamide of Formula IIIA as a gellant:



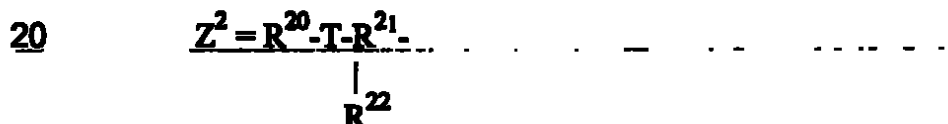
Formula IIIA

where:

- (1) DP is a number in the range of 5-30, particularly 12-18 (especially 15);
 (2) n is a number selected from the group consisting of 1-500 (especially 52);
 5 (3) X is a linear or branched chain alkylene having 1-30 carbons (especially 10);
 (4) Y is selected from the group consisting of linear and branched chain alkylenes having 1-40 carbons (especially 6), wherein:

(a1) the alkylene group may optionally and additionally contain in the
 10 alkylene portion at least one of the members of a group consisting of (i) 1-3 amide linkages; (ii) C5 or C6 cycloalkane (as a cycloalkylene linkage); and (iii) phenylene optionally substituted by 1-3 members selected independently from the group consisting of C1-C3 alkyls; and

(b1) the alkylene group itself may optionally be substituted by at least
 15 one member selected from the group consisting of (i) hydroxy; (ii) C3-C8 cycloalkane; (iii) 1-3 members selected independently from the group consisting of C1-C3 alkyls; phenyl optionally substituted by 1-3 members selected independently from the group consisting of C1-C3 alkyls; (iv) C1 - C3 alkyl hydroxy; and (v) C1 - C6 alkyl amine; or $Y = Z^2$ where



wherein each of R^{20} , R^{21} are independently selected from the group consisting
 25 of linear and branched C1-C10 alkylenes; R^{22} is selected from the group consisting of linear and branched C1-C10 alkanes; and T is selected from the group consisting of (i) a trivalent atom selected from N, P and Al; and (ii) -CR, where R is selected from the group consisting of hydrogen, methyl, ethyl, propyl, isopropyl, a siloxane chain, and phenyl, wherein the phenyl may
 30 optionally be substituted by 1-3 members from the group consisting of methyl and ethyl, especially methyl and ethyl and most especially methyl; and

(5) each of $R^1 - R^4$ is independently selected from the group consisting of
 35 methyl, ethyl, propyl, isopropyl, a siloxane chain, and phenyl, wherein the phenyl may optionally be substituted by 1-3 members from the group consisting of methyl and ethyl

(with more particular values for $R^1 - R^4$ being selected from methyl and ethyl and especially methyl);

wherein the polyamide of Formula IIIA has:

- (i) a silicone portion in the acid side of the polyamide;
- 5 (ii) an average molecular weight of at least 30,000 daltons with at least 95% of the polyamide having a molecular weight greater than 4,000 daltons; and
- (iii) a polydispersity of less than 20;

(The polyamide material is supplied by Dow Corning Corp., Midland MI, as Dow
10 Corning @2-8178 Gellant. The INCI Name is Nylon-611/Dimethicone copolymer, but the commercial version of the product conveniently used here has about 10 weight % PPG-3 myristal ether. Thus, the PPG-3 myristal ether can also be in the final composition if this commercial material is used. For the final composition, the amount of PPG myristal ether can be in the range of about 0.01 - 0.15 weight %.)

15 (c) an antiperspirant active used in an amount to have a deodorant and/or antiperspirant effect (for example, 5 - 25 weight % based on the entire weight of the composition) for example Reach®103 an activated antiperspirant or Reheis Microdry® ACH a non-activated aluminum chlorohydrate ("ACH") (from Reheis Incorporated, Berkeley Heights, NJ), wherein the amounts are in percent by weight based on the total weight of
20 the composition. It is preferred to add the antiperspirant active as a dry powder to obtain a product with better efficacy and aesthetics. Solutions of the antiperspirant salt can also be used. These solutions can be solutions in water, glycols, alcohols and mixtures of the above. The solution concentrations can be from 5 - 50% ACH in the solvent.

25 (d) the propellant gas can be chosen from the group singly or in combinations from the following;

- (1) compressed gas propellants selected from the group consisting of the industry standard inert gases carbon dioxide, nitrous oxide, and nitrogen;
- (2) liquefied gas propellants selected from the groups consisting of:
 - 30 (a) hydrocarbons, for example liquefied petroleum gases such as propane, isobutane, n-butane, isopentane and n-pentane;
 - (b) fluorocarbons, for example 1,1Difluoroethane (152a) and 1,1,1,2 Tetrafluoroethane (134a);
 - (c) ethers, for example, dimethyl ether; and
 - 35 (d) mixtures of the foregoing (a)-(c).

Optional ingredients may also be added to the composition of the invention. These optional ingredients include additional emollients (0-20%), silicone gums (0-20%), elastomers (0-20%), silicone resins (0-20%), colorants (0-1%), fragrances (0-3%), antimicrobials (0-2%), surfactants (0-10%), and inert particulates (0-30%) to achieve better structural integrity, stability or aesthetics.

A variety of aluminum salts can be used in the invention such as is known in the art. While several specific aluminum salts have been described, it is currently believed than any aluminum salt known to be useful in antiperspirant/deodorant products may be used with the invention. While the use of antiperspirant salts containing zirconium (for example, tri and tetra salts of aluminum and zirconium with glycine) are currently not permitted to be used in aerosol products in many geographies including the United States, there is no technical reason why such salts cannot be used in the invention.

A comprehensive list of both aluminum and aluminum/zirconium salts include the following. These include conventional aluminum and aluminum/zirconium salts, as well as aluminum/zirconium salts complexed with a neutral amino acid such as glycine, as known in the art. See each of European Patent Application Number. 512,770 A1 and PCT case WO 92/19221. Suitable materials include (but are not limited to) aluminum chlorides (various types including, for example, anhydrous form, hydrated form, etc.), basic aluminum chlorides, basic aluminum chlorides combined with zirconyl oxychlorides and hydroxychlorides, and organic complexes of each of basic aluminum chlorides with or without zirconyl oxychlorides and hydroxychlorides and mixtures of any of the foregoing. These include, by way of example (and not of a limiting nature), aluminum chlorohydrate, aluminum chloride, aluminum sesquichlorohydrate, aluminum chlorohydrate-propylene glycol complex, zirconyl hydroxychloride, aluminum-zirconium glycine complex (for example, aluminum zirconium trichlorohydrate gly, aluminum zirconium pentachlorohydrate gly, aluminum zirconium tetrachlorohydrate gly and aluminum zirconium octachlorohydrate gly), aluminum dichlorohydrate, aluminum chlorohydrate PG, aluminum chlorohydrate PEG, aluminum dichlorohydrate PG, aluminum dichlorohydrate PEG, aluminum zirconium trichlorohydrate gly propylene glycol complex, aluminum zirconium trichlorohydrate gly dipropylene glycol complex, aluminum zirconium tetrachlorohydrate gly propylene

glycol complex, aluminum zirconium tetrachlorohydrate gly dipropylene glycol complex, and mixtures of any of the foregoing.

If aluminum/zirconium salts are used, particular antiperspirant actives that can be incorporated in the compositions of the present invention include the enhanced efficacy aluminum salts and the enhanced efficacy aluminum/zirconium salt-glycine materials, having enhanced efficacy due to improved molecular distribution, known in the art and discussed, for example, in PCT No. WO92/19221. Particular actives include Westchlor A2Z 4105 aluminum zirconium tetrachlorohydrate gly propylene glycol complex, (from Westwood Chemical Corporation, Middletown, NY); Westchlor ZR 35B aluminum zirconium tetrachlorohydrate gly, and Rezal 36 GP and AZP 902 aluminum zirconium tetrachlorohydrate gly both from Reheis, Berkeley Heights, NJ as well as Rezal AZZ 908 from Reheis. In general, the metal:chloride mole ratio is in the range of 2.1-0.9:1 for such salts.

Another particular group of actives of special interest because they form low RI solutions include: Westchlor Zr 35BX3 (30-35% actives in water) from Westwood Chemical Company, Middletown, NY; Rezal 36G (46% in water) from Reheis Inc., Berkeley Heights, NJ; Summit AZG-368 (28-32% in water) from Summit Research Labs, Huguenot, NY; Reach 301 (39% in water) from Reheis Inc.; and aluminum chloride (28% in water) which may be obtained from several sources. In general, the metal:chloride mole ratio is approximately 1.4:1 for such salts.

If an aluminum zirconium salt is used, one particular type of salt of interest is an aluminum zirconium tetra salt with glycine is used wherein aluminum zirconium tetrachlorohydrate glycine salt having a metal to chloride ratio in the range of 0.9-1.2:1 (especially in the range of 0.9-1.1:1 and, more particularly in the range of 0.9-1.0:1); and a glycine:zirconium mole ratio greater than 1.3:1, particularly greater than 1.4:1.

For commercial purposes, currently the particular embodiments of interest contain only aluminum salts and do not contain zirconium.

Other embodiments are free of silicone gums, elastomers, silicone resins, colorants, fragrances, antimicrobials, surfactants, and inert particulates.

EXAMPLES

The following Examples are offered as illustrative of the invention and are not to be construed as limitations thereon. In the Examples and elsewhere in the description of the invention, chemical symbols and terminology have their usual and customary meanings. In the Examples as elsewhere in this application values for n, m, etc. in formulas, molecular weights and degree of ethoxylation or propoxylation are averages. Temperatures are in degrees C unless otherwise indicated. The amounts of the components are in weight percents based on the standard described; if no other standard is described then the total weight of the composition is to be inferred. Various names of chemical components include those listed in the CTFA International Cosmetic Ingredient Dictionary (Cosmetics, Toiletry and Fragrance Association, Inc., 7th ed. 1997).

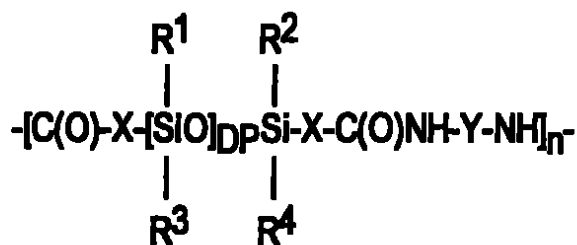
Example 1: Aerosol Product

Base Formula - An aerosol base is produced by combining 23.4g cyclopentasiloxane, 14.0g isopropyl palmitate, 6.8g mineral oil, 3.8g isostearyl alcohol, 2g nylon 611/dimethicone copolymer (also referred to herein as "selected polyamide") together with stirring and heating to a temperature of about 90 degrees C until all of the selected polyamide is dissolved. The mixture is cooled to room temperature. Next, 50g of antiperspirant active are added and dispersed into the resultant gel. A thick antiperspirant base with a viscosity in the range of 3,500-12,000 centipoise as determined by using a Brookfield RTV viscometer. The measurement is taken using Spindle D at 10 RPM with the Helipath attachment.

Filling the Aerosol Cans - The amount of base formula used depends on the final concentration of aluminum active salt required for the final product. The current formula requires 16g of the aerosol base and 1g of perfume oil. These ingredients are placed in a conventional 150 ml tin plated, three piece steel aerosol can (obtained from CCL, Harrisonburg, VA). A steel plated aerosol valve (obtained from Seaquist Perfect, Carey IL.) is crimped to the top of the can using a Single Head Pneumatic Aerosol Valve Crimper (from Nalbach Engineering Inc., Country Side IL). The can is then charged with 83g of propellant A-46, a mixture of 21.91% propane, 46.84% n-butane, and 30.84% isobutane, using an aerosol burette. An actuator and a hood are then placed over the valve and the product is ready for use.

Claims*What is claimed is:*

- 5 1. An aerosol antiperspirant/deodorant product comprising:
- (a) a solvent system for the gellant in an amount of up to 36% of the total formula, wherein the solvent system is compatible with a siliconized polyamide of Formula IIIA and comprises one or more members is selected from the group consisting of:
- 10 (1) from 1.5 - 16% by weight based on the total weight of the composition of at least one non-silicone organic material selected from the group consisting of C12 - 36 esters; extra light to heavy white mineral oils with viscosity ranging from 6.5 - 110 centistokes at 40 degrees C; guerbet alcohols having 8 - 30 carbons; fatty alcohols having 8 - 30 carbons; ethoxylated and propoxylated alcohols having 3 - 30 carbons; alkyl ethers having 12 - 36 carbons; C12 - 18 alkyl benzoate and benzoate ester
- 15 derivatives; paraffins having a distillation temperature in the range of 372 - 426 degrees C; isoparaffins having a distillation temperature in the range of 178 - 207 degrees C; and alkyl carbonates;
- (2) from 2 - 20% by weight based on the total weight of the composition of a volatile silicone selected from the group consisting of cyclomethicone and low
- 20 viscosity dimethicones; and
- (3) from 0-10% organo-silicones;
- (b) from 0.1 - 1.5% by weight based on the total weight of the composition of at least one siliconized polyamide of Formula IIIA as a gellant:



Formula IIIA

where:

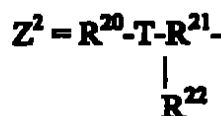
- (1) DP is a number in the range of 5-30;
- 30 (2) n is a number selected from the group consisting of 1-500;

(3) X is a linear or branched chain alkylene having 1-30 carbons;

(4) Y is selected from the group consisting of linear and branched chain alkylenes having 1-40 carbons, wherein:

(a1) the alkylene group may optionally and additionally contain in the alkylene portion at least one of the members of a group consisting of (i) 1-3 amide linkages; (ii) C5 or C6 cycloalkane as a cycloalkylene linkage; and (iii) phenylene optionally substituted by 1-3 members selected independently from the group consisting of C1-C3 alkyls; and

(b1) the alkylene group itself may optionally be substituted by at least one member selected from the group consisting of (i) hydroxy; (ii) C3-C8 cycloalkane; (iii) 1-3 members selected independently from the group consisting of C1-C3 alkyls; phenyl optionally substituted by 1-3 members selected independently from the group consisting of C1-C3 alkyls; (iv) C1 - C3 alkyl hydroxy; and (v) C1 - C6 alkyl amine; or $Y = Z^2$ where



wherein each of R^{20} , R^{21} are independently selected from the group consisting of linear and branched C1-C10 alkylenes; R^{22} is selected from the group consisting of linear and branched C1-C10 alkanes; and T is selected from the group consisting of (i) a trivalent atom selected from N, P and Al; and (ii) -CR, where R is selected from the group consisting of hydrogen, methyl, ethyl, propyl, isopropyl, a siloxane chain, and phenyl, wherein the phenyl may optionally be substituted by 1-3 members from the group consisting of methyl and ethyl; and

(5) each of R1 - R4 is independently selected from the group consisting of methyl, ethyl, propyl, isopropyl, a siloxane chain, and phenyl, wherein the phenyl may optionally be substituted by 1-3 members from the group consisting of methyl and ethyl;

17

wherein the polyamide of Formula IIIA has:

- 5 (i) a silicone portion in the acid side of the polyamide;
(ii) an average molecular weight of at least 30,000 daltons with at least 95% of the polyamide having a molecular weight greater than 4,000 daltons; and
(iii) a polydispersity of less than 20;
- (c) an antiperspirant active used in an amount to have a deodorant and/or antiperspirant effect; and
- (d) propellant gas selected from the group consisting of:
- 10 (1) compressed gas propellants selected from the group consisting of inert gases, carbon dioxide, nitrous oxide, and nitrogen;
- (2) liquefied gas propellants selected from the groups consisting of:
- 15 (i) hydrocarbons selected from the group consisting of liquefied petroleum gases;
- (ii) fluorocarbons selected from the group consisting of 1,1difluoroethane (152a) and 1,1,1,2 tetrafluoroethane (134a);
- (iii) ethers; and
- (iv) mixtures of the foregoing (i)-(iii).
- 20 2. An aerosol antiperspirant/deodorant product comprising:
- (a) about 2 - 20 weight % cyclomethicone;
- (b) about 1 - 8 weight % isopropyl palmitate;
- (c) about 0.5 - 3.5 weight % mineral oil;
- (d) about 0.3 - 4 weight % isostearyl alcohol;
- 25 (e) about 0.1 - 1.5 weight % Nylon 611/dimethicone copolymer;
- (f) about 5 - 25 weight % of a solid antiperspirant active;
- (g) optionally about 0.3 - 2.0 weight % of a perfume oil; and
- (h) about 37- 90 weight % of a propellant gas;
- wherein the amounts are based on the total weight of the composition.
- 30 3. An aerosol antiperspirant/deodorant product according to Claim 2 wherein the cyclomethicone is D5, D6 or mixtures of D5 and D6 cyclomethicones.
- 35

4. An aerosol antiperspirant/deodorant product according to Claim 2 comprising:
- (a) about 5 weight % cyclomethicone;
 - (b) about 2.2 weight % isopropyl palmitate;
 - (c) about 0.7 weight % mineral oil;
 - 5 (d) about 0.6 weight % isostearyl alcohol;
 - (e) about 0.3 weight % Nylon 611/dimethicone copolymer;;
 - (f) about 5 - 25 weight % of a solid antiperspirant active (especially 10%);
 - (g) optionally about 0.3 - 2.0 weight % of a perfume oil (especially 1.0%); and
 - (h) about 37- 90 weight % of a propellant gas (especially 83%);
 - 10 wherein the amounts are based on the total weight of the composition.
5. An aerosol antiperspirant/deodorant product according to Claim 2 wherein the propellant gas is one or more gasses selected from the group consisting of:
- (a) compressed gas propellants selected from the group consisting of the
 - 15 industry standard inert gases carbon dioxide, nitrous oxide, and nitrogen; and
 - (b) liquefied gas propellants selected from the groups consisting of:
 - (1) hydrocarbons which are liquefied petroleum gases selected from the
 - group consisting of propane, isobutene, n-butane, is pentane and n-
 - 20 pentane;
 - (2) fluorocarbons selected from the group consisting of 1,1-difluoroethane
 - (152a) and 1,1,1,2-tetrafluoroethane (134a);
 - (3) diethyl ether; and
 - (4) mixtures of any of the foregoing.
- 25 6. An aerosol antiperspirant/deodorant product according to Claim 1 further comprising one or more additional ingredients selected from the group consisting of: emollients, silicone gums, elastomers, silicone resins, colorants, fragrances, antimicrobials, surfactants, and inert particulates.
- 30 7. An aerosol antiperspirant/deodorant product according to Claim 2 further comprising one or more additional ingredients selected from the group consisting of: emollients, silicone gums, elastomers, silicone resins, colorants, fragrances, antimicrobials, surfactants, and inert particulates.
- 35 8. An aerosol antiperspirant/deodorant product according to Claim 1 which is free of silicone gums, elastomers, silicone resins, colorants, fragrances, antimicrobials, surfactants, and inert particulates.



9. An aerosol antiperspirant/deodorant product according to Claim 1 which is free of silicone gums, elastomers, silicone resins, colorants, fragrances, antimicrobials, surfactants, and inert particulates.

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(54) Título: DESODORANTE EN AEROSOL CON POLIAMIDA

(57) Resumen: Un antitranspirante/desodorante en aerosol que comprende: (a) un sistema solvente para el gelante en una cantidad de hasta 38% de la fórmula total; (b) de 0.1 – 1.5% en peso basado en el peso total de la composición de al menos una poliamida siliconizada como gelante; (c) un agente activo antitranspirante utilizado en una cantidad que tiene un efecto desodorante y/o antitranspirante; y (d) un gas propelente.

DESODORANTE EN AEROSOL CON POLIAMIDACampo de la Invención

5 La invención se refiere a composiciones de aerosol que tienen propiedades mejoradas. Estas mejoras incluyen una fabricación más fácil, control y reproducción. Los productos fabricados ayudan a aliviar el empaque duro del activo desodorante en el fondo del bote. Esto asegura que el
10 ingrediente activo es surtido parejamente cuando el producto es usado.

Antecedentes de la Invención

15 Las poliamidas seleccionadas como gelantes se han descrito en varios casos propiedad del mismo propietario de ésta invención. Se ha encontrado ahora que éste material puede ser ventajosamente usado en composiciones en aerosol bajo ciertas condiciones.

20

Breve Síntesis de la Invención

La invención comprende un producto en aerosol que comprende:

25

(a) alrededor de 2-20% por peso de ciclometicona (especialmente 5%) (particularmente D5, D6 o mezclas de D5 y D6);

5 (b) alrededor de 1-8% por peso de isopropil palmitato (especialmente 2.2%);

(c) alrededor de 0.5-3.5% por peso de aceite mineral (especialmente 0.7%);

10

(d) alrededor de 0.3-4% por peso de alcohol de isostearilo (especialmente 0.6%);

(e) alrededor de 0.1-1.5% por peso de copolímero
15 dimeticona/nylon 611 (especialmente 0.3%);

(f) alrededor de 5-25% por peso de un activo desodorante sólido (especialmente 10%);

20

(g) opcionalmente alrededor de 0.3-2.0% por peso de un aceite de perfume (especialmente 1.0%); y

(h) alrededor de 37-90% por peso de un gas
25 propelante (especialmente 83%);

en donde las cantidades son usadas sobre el peso total de la composición.

Descripción Detallada de la Invención

5

La formulación de aerosol se hace de:

(a) un sistema solvente para el gelante en una cantidad de hasta 36% de la fórmula total, en donde el sistema
10 solvente es compatible con la poliamida siliconizada y el sistema solvente comprende uno o más miembros es seleccionado del grupo que consiste de:

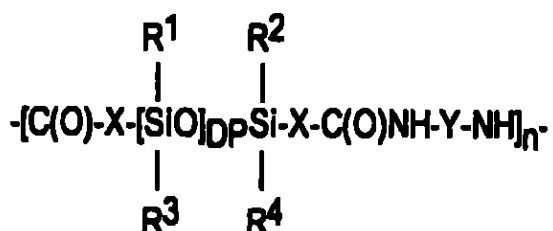
(1) de desde 1.5-16% por peso basado sobre el
15 peso total de la composición de por lo menos un material orgánico de no silicona seleccionado del grupo que consiste de ésteres C12-36 (por ejemplo, tridecil neopentanoato, etil oleato, dioctil carbonato, isopropil palmitato, octil metoxicinamato); aceites minerales blancos extra ligeros a
20 pesados con una viscosidad variando de desde 6.5-110 centistokes a 40 grados C; alcoholes guerbet que tienen 8-30 carbonos; alcoholes grasos que tienen 8-30 carbonos; alcoholes etoxilatados y propoxilatados que tienen 3-30 carbonos (por ejemplo, PPG-14 butil éter, y PPG-3 miristil éter); éteres de
25 alquilo que tienen de 12-36 carbonos (por ejemplo, dioctil éter); derivados de éster benzoato y alquil benzoato C12-18 (por ejemplo, benzoato de alquilo C12-15, isostearil benzoato y octil

dodecil benzoato, octil salicilato); y parafinas que tienen una temperatura de destilación en el rango de 372-426 grados C; isoparafinas que tienen una temperatura de destilación en el rango de 178-207 grados C; carbonatos de alquilo (por ejemplo, dioctil carbonato);

(2) de desde 2-20% por peso basado sobre el peso total de la composición de una silicona volátil seleccionada del grupo que consiste de ciclometicona y dimeticonas de viscosidad baja (por ejemplo, Dow Corning 200 fluido/2 centistokes o menos de Dow Corning, de Midland, Michigan); y

(3) de desde 0-10% de órgano siliconas tal como fenil trimeticona. Este sistema solvente consiste de uno o más de los ingredientes arriba listados. El sistema solvente también permite a las composiciones de la invención el ser procesadas a temperaturas más bajas (por ejemplo, temperaturas en el rango de alrededor de 60 a 90 grados C o más bajas). Esto es importante para reducir la evaporación de materiales volátiles de la composición durante la fabricación y procesamiento. También deberá notarse que muchos de los solventes descritos aquí tienen características emolientes en la fórmula global.

(b) de desde 0.1-1.5% por peso basado sobre el peso total de la composición de por lo menos una poliamida siliconizada de la fórmula IIIA como un gelante:



Formula IIIA

en donde:

5

(1) DP es un número en el rango de 5-30, particularmente 12-18 (especialmente 15);

(2) n es un número seleccionado del grupo que
10 consiste de 1-500 (especialmente 52);

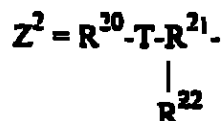
(3) X es un alquileo de cadena lineal o ramificada que contiene 1-30 carbonos (especialmente 10);

15 (4) Y es seleccionado del grupo que consiste de alquilenos de cadena lineal y ramificada que tienen 1-40 carbonos (especialmente 6), en donde:

(a1) el grupo de alquileo puede opcionalmente y
20 adicionalmente contener en la parte de alquileo por lo menos uno de los miembros de un grupo que consiste de (i) 1-3 enlaces amida; (ii) cicloalcano C5 o C6 (como un enlace

cicloalquileo); y (iii) fenileno opcionalmente sustituido por 1-3 miembros seleccionados independientemente del grupo que consiste de alquilo C1-C3; y

5 (b1) el grupo de alquileo mismo puede opcionalmente ser sustituido por lo menos por un miembro seleccionado del grupo que consiste de (i) hidroxil; (ii) cicloalcano C3-C8; (iii) 1-3 miembros seleccionados independientemente del grupo que consiste de alquilo C1-C3; 10 fenil opcionalmente sustituido por 1-3 miembros seleccionados independientemente del grupo que consiste de alquilo C1-C3; (iv) hidroxil alquilo C1-C3; y (v) alquil amina C1-C6; o $Y = Z^2$ en donde



15

en donde cada uno de R^{20} , R^{21} son seleccionados independientemente del grupo que consiste de alquilenos C1-C10 lineales y ramificados; R^{22} es seleccionado del grupo que consiste de alcanos C1-C10 lineales y ramificados; y T es 20 seleccionado del grupo que consiste de (i) un átomo trivalente seleccionado de N, P, y Al; y (ii) -CR en donde R es seleccionado del grupo que consiste de hidrógeno, metilo, etilo, propilo, isopropilo, una cadena de siloxano, y fenilo, en donde el fenilo puede opcionalmente ser sustituido por 1-3 miembros

del grupo que consiste de metilo y etilo, especialmente metilo y etilo y más especialmente etilo; y

(5) cada uno de $R^1 - R^4$ es independientemente
5 seleccionado del grupo que consiste de metilo, etilo, propilo, isopropilo, una cadena de siloxano, y fenilo, en donde el fenilo puede opcionalmente ser sustituido por 1-3 miembros del grupo que consiste de metilo y etilo (con valores más particulares para $R^1 - R^4$ siendo seleccionados de metilo y etilo y
10 especialmente metilo);

en donde la poliamida de la fórmula IIIA tiene:

(i) una parte de silicona en el lado ácido de la
15 poliamida;

(ii) un peso molecular promedio de por lo menos de 30,000 daltons con por lo menos 95% de la poliamida teniendo un peso molecular mayor de 4,000 daltons; y

20

(iii) una polidispersidad de menos de 20;

(El material de poliamida es suministrado por Dow Corning Corporation, de Midland, Michigan, Dow Corning® 2-8178
25 gelante. El nombre INCI es copolímero nylon-600/dimeticona, pero la versión comercial del producto convenientemente usada aquí tiene alrededor de 10% por peso de PPG-3 miristal éter. Por

20

tanto, el PPG-3 miristal éter también puede estar en la composición final si éste material comercial es usado. Para la composición final, la cantidad de PPG miristal éter puede estar en el rango de alrededor de 0.01-0.15% por peso).

5

(c) un activo desodorante usado en una cantidad para tener un efecto desodorante y/o antitranspirante (por ejemplo, 5-25% por peso basado sobre el peso total de la composición) por ejemplo, Reach® 103 un antitranspirante
10 activado o Reheis Microdry® ACH un clorohidrato de aluminio no activado ("ACH") (de Reheis Incorporated, de Berkeley Heights, New Jersey), en donde las cantidades están en por ciento por peso basadas sobre el peso total de la composición. Se prefiere el agregar el activo antitranspirante como un polvo seco para
15 obtener un producto con mejor eficacia y estética. Las soluciones de la sal antitranspirante también pueden ser usadas. Estas soluciones pueden ser soluciones en agua, glicoles, alcoholes y mezclas de los anteriores. Las concentraciones de solución pueden ser de desde 5-50% de clorohidrato de aluminio
20 activado en el solvente.

(d) el gas propelante puede ser escogido del grupo de singular o en combinaciones de los siguientes:

25 (1) propelantes de gas comprimidos seleccionados del grupo que consiste de dióxido de carbono gases inertes estándar de la industria, óxido nitroso, y nitrógeno;

3X 29

(2) propelantes de gas licuado seleccionados de los grupos que consisten de:

5 (a) hidrocarburos, por ejemplo gases de petróleo licuados tal como propano, isobutano, n-butano, isopentano y n-pentano;

(b) flurocarbonos, 1,1 Difluoroetano (152a) y
10 1,1,1,2 Tetrafluoroetano (134a);

(c) éteres, por ejemplo, dimetil éter; y

(d) mezclas de los anteriores (a) - (c).

15

Otros ingredientes opcionales también pueden ser agregados a la composición de la invención. Estos ingredientes opcionales incluyen los emolientes adicionales (0.20%), gomas de silicona (0-20%), elastómeros (0-20%), resinas de silicona (0-
20 20%), colorantes (0-1%), fragancias (0-3%), antimicrobiales (0-2%), surfactantes (0-10%), y partículas inertes (0-30%) para lograr una integridad estructural mejor, estabilidad o estética.

Puede ser usada una variedad de sales de aluminio
25 en la invención tal como se conoce en el arte. Aún cuando se han descrito varias sales de aluminio específicas, se cree actualmente que cualquier sal de aluminio conocida como útil en

2/30

los productos desodorantes/antitranspirantes pueden ser usadas con la invención. Aún cuando el uso de las sales antitranspirantes que contienen zirconio (por ejemplo, tri y tetra sales de aluminio y zirconio con glicina) son actualmente
5 no permitidas para usarse en productos aerosol en muchas geografías incluyendo los Estados Unidos, y no hay una razón técnica por lo que tales sales no puedan ser usadas en la invención.

10 Una lista comprensiva de ambas las sales de aluminio y de aluminio/zirconio incluyen los siguientes. Estas incluyen las sales de aluminio y aluminio/zirconio convencionales, como también las sales de aluminio/zirconio complejadas con un ácido amino neutral tal como glicina, como se
15 conoce en el arte. Vea cada una de la solicitud de patente Europea No. 512,770 A1 y el caso PCT WO 62/19221. Los materiales adecuados incluyen (pero no se limitan a) cloruros de aluminio (varios tipos incluyendo, por ejemplo, la forma anhidra, la forma hidratada, etc.), los cloruros de aluminio
20 básicos, los cloruros de aluminio básicos combinados con oxiclорuros de zirconilo y los hidroxiclорuros, y los complejos orgánicos de cada uno de los cloruros de aluminio básicos con o sin oxiclорuros y además hidroxiclорuros de zirconilo y mezclas de cualquiera de los anteriores. Estos incluyen. Por vía de
25 ejemplo (y no de una naturaleza limitante), el clorohidrato de aluminio, cloruro de aluminio, el sesquiclорohidrato de aluminio, el complejo de propilen glicol-clorohidrol de

aluminio, el hidroxidocloruro de zirconilo, el complejo de glicina aluminio-zirconio (por ejemplo, triclorohidrex gly de aluminio zirconio, pentaclorohidrex gly de aluminio-zirconio, tetraclorohidrex gly de aluminio-zirconio, y octoclorohidrex gly de aluminio-zirconio), diclorohidrato de aluminio, clorohidrex PG de aluminio, clorohidrex PEG de aluminio, diclorohidrex PG de aluminio, complejo de propilen glicol triclorohidrex gly de aluminio-zirconio, complejo de dipropilen glicol triclorohidrex gly de aluminio -zirconio, complejo de propilen glicol tetraclorohidrex gly de aluminio-zirconio, complejo de dipropilen glicol gly tetraclorohidrex de aluminio-zirconio y mezclas de cualquiera de los anteriores.

Sí son usadas las sales de aluminio-zirconio, los activos antitranspirantes particulares que pueden ser incorporados en las composiciones de la presente invención incluyen las sales de aluminio de eficacia mejorada y los materiales de glicina-sal de aluminio/zirconio que tienen una eficacia mejorada debido a una distribución molecular mejorada, conocida en el arte y discutida, por ejemplo, en la patente OCT No. WO92/19221. Los activos particulares incluyen el complejo de aluminio zirconio tetraclorohidrex gly propilen glicol Westchlor A2Z 4105 (de Westwood Chemical Corporation, de Middletown, New York); el aluminio zirconio tetraclorohidrex gly Westchlor ZR 35B, y el aluminio zirconio tetraclorohidrex gly Rezal 36 GP y AZP 902 ambos de Reheis, de Berkeley Heights, New Jersey así como Rezal A2Z 908 de Reheis. En general, la

2X 32

proporción de mol de metal:cloruro está en el rango de 2.1-0.9:1 para tales sales.

Otro grupo particular de activos de interés especial debido a que éstos forman soluciones RI bajas incluyen: Westchlor Zr 35BX3 (30-35% de activos en agua) de Westwood Chemical Company, de Middletown, New York; Rezal 36G (46% en agua) de Reheis Inc., de Berkeley Heights, New Jersey; Summit AZG-368 (28-32% en agua) de Summit Research Labs, de Huguenot, New York; Reach 301 (39% en agua) de Reheis, Inc.; y cloruro de aluminio (28% en agua) el cual puede obtenerse de varias fuentes. En general, la proporción de mol de metal: cloruro es de aproximadamente de 1.4:1 para tales sales.

Sí la sal de zirconio aluminio es usada, un tipo particular de sal de interés es una sal tetra de aluminio zirconio con glicina es usada en donde la sal de tetraclorohidrex glicina de aluminio zirconio teniendo una proporción de metal a cloruro en el rango de 0.9-1.2:1 (especialmente en el rango de 0.9-1.1:1 y, más particularmente en el rango de 0.9-1.0:1); y una proporción de mol de glicina: zirconio mayor de 1.3:1, particularmente mayor de 1.4:1.

Para propósitos comerciales, las incorporaciones particulares actuales de interés contienen sólo sales de aluminio y no contienen zirconio.

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Otras incorporaciones están libres de gomas de silicona, elastómeros, resinas de silicona, colorantes, fragancias, antimicrobiales, surfactantes y partículas inertes.

5

EJEMPLOS

Los siguientes ejemplos son ofrecidos como ilustrativos de la invención y no deben ser considerados como limitaciones de la misma. En los ejemplos y en otras partes en la descripción de la invención, los símbolos químicos y la terminología tienen sus significados usuales y acostumbrados. En los ejemplos como en otras partes en ésta solicitud los valores de n, m, etc., en las fórmulas, pesos moleculares y grados de etoxilación o propoxilación son promedios. Las temperaturas están en grados C a menos que se indique de otra manera. Las cantidades de los componentes están en por cientos por peso basados sobre el estándar descrito; si no otro estándar está descrito que el peso total de la composición debe ser inferido. Varios nombres de componentes químicos incluyen aquellos listados en el Diccionario de Ingredientes Cosméticos Internacional CTFA (Cosmetics, Toiletry and Fragrance Association, Inc., 7ª edición 1997).

25

Ejemplo 1 : Producto en Aerosol

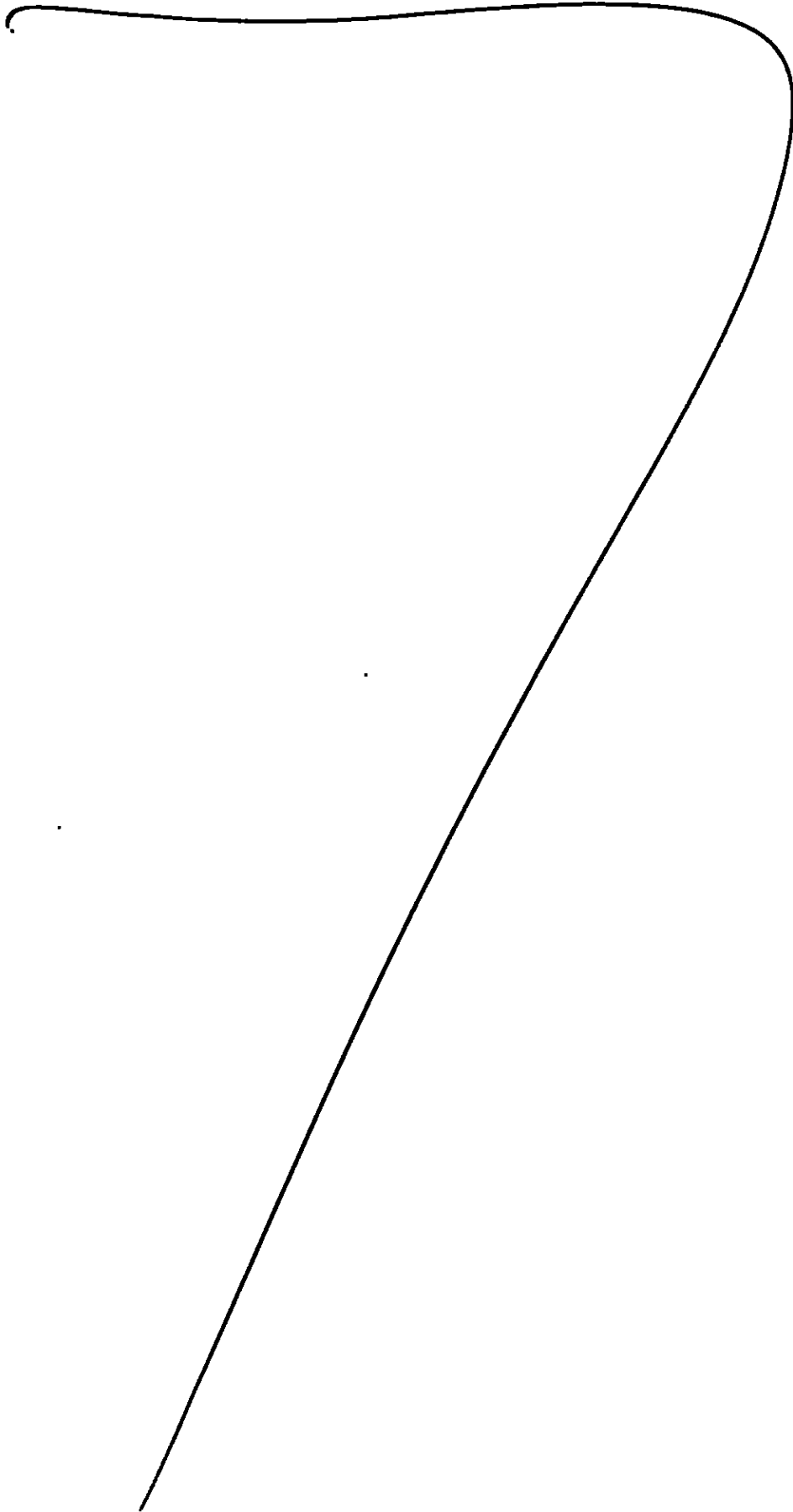
Fórmula de Base - Una base de aerosol es producida mediante el combinar 23.4 gramos de ciclopentasiloxano, 14.0

gramos de isopropil palmitato, 6.8 gramos de aceite mineral, 3.8
gramos de alcohol de isostearilo, 2 gramos de copolímero
dimeticona/nylon 611 (también mencionado aquí como "poliamida
seleccionada") junto con la agitación y calentamiento a una
5 temperatura de alrededor de 90 grados C hasta que toda la
poliamida seleccionada es disuelta. La mezcla es enfriada a
temperatura ambiente. En seguida, 50 gramos de antitranspirante
activo son agregados y se dispersan en el gel resultante. Una
base antitranspirante gruesa con una viscosidad en el rango de
10 3,500-12,000 centipoises como se determinó mediante el uso de un
viscómetro Brookfield RTV. La medición es tomada usando el huso
D a 10 revoluciones por minuto con una sujeción de Helipath.

Llenado de Botes de Aerosol - La cantidad de
15 fórmula de base usada depende de la concentración final de sal
activa de aluminio requerida para el producto final. La fórmula
actual requiere 16 gramos de la base de aerosol y un gramo de
aceite de perfume. Estos ingredientes son colocados en un bote
de aerosol de acero de tres piezas cubierto de estaño de 150
20 mililitros convencional (obtenido de CCL, de Harrisonburg,
Virginia). Una válvula de aerosol plateado de acero (obtenida
de Seaquist Perfect, de Carey, Illinois) es colocada en la parte
superior del bote usando un Single Head Pneumatic Aerosol Valve
Crimper (de Nalbach Engineering Inc., de Country Side,
25 Illinois). El bote es entonces cargado con 83 gramos de
propelante A-46, una mezcla de 21.91% de propano, 46.84% de n-
butano, y 30.84% de isobutano, usando una bureta de aerosol. Un

~~27~~ 35

accionador y una cubierta son entonces colocados sobre la
válvula y el producto está listo para usarse.



36/36

R E I V I N D I C A C I O N E S

1. Un producto antitranspirante/desodorante en aerosol que comprende:

5

(a) un sistema solvente para el gelante en una cantidad de hasta 36% de la fórmula total, en donde el sistema solvente es compatible con una poliamida siliconizada de la fórmula IIIA y comprende uno o más miembros y es seleccionado del grupo que consiste de:

10

(1) de desde 1.5-16% por peso basado sobre el peso total de la composición de por lo menos un material orgánico de no silicona seleccionado del grupo que consiste de ésteres C12-36; aceites minerales blancos extra ligeros a pesados con una viscosidad variando de desde 6.5-110 centistokes a 40 grados C; alcoholes guerbet teniendo 8-30 carbonos; alcoholes grasos teniendo 8-30 carbonos; alcoholes etoxilados y propoxilados teniendo 3-30 carbonos; éteres de alquilo teniendo 12-36 carbonos; derivados de éster benzoato y alquil benzoato C12-18; parafinas teniendo una temperatura de destilación en el rango de 372-426 grados C; isoparafinas teniendo una temperatura de destilación en el rango de 178-207 grados C; y carbonatos de alquilo;

25

(2) de desde 2-20% por peso basado sobre el peso total de la composición de una silicona volátil seleccionada del

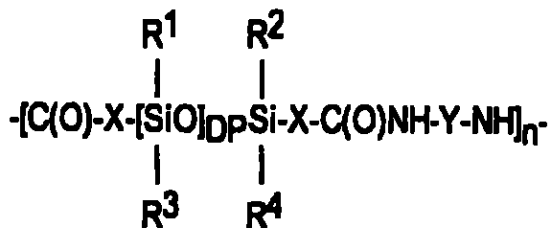
3X 3X

grupo que consiste de ciclometicona y dimeticonas de viscosidad baja; y

(3) de desde 0-10% de órgano-siliconas;

5

(b) de desde 0.1-1.5% por peso basado sobre el peso total de la composición de por lo menos una poliamida siliconizada de la fórmula IIIA como un gelante:



10

Formula IIIA

en donde:

(1) DP es un número en el rango de 5-30;

15

(2) n es un número seleccionado del grupo que consiste de 1-500;

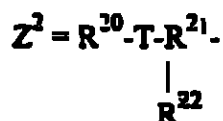
(3) X es un alquileo de cadena lineal o
20 ramificada teniendo 1-30 carbonos;

30

(4) Y es seleccionado del grupo que consiste de alquilenos de cadena lineal y ramificada teniendo 1-40 carbonos, en donde:

5 (a1) el grupo de alquileo puede opcionalmente y adicionalmente contener en la parte de alquileo por lo menos uno de los miembros del grupo que consiste de (i) 1-3 enlaces amida; (ii) cicloalcano C5 o C6 como un enlace de cicloalquileo; y (iii) fenileno opcionalmente sustituido por
10 1-3 miembros seleccionados independientemente del grupo que consiste de alquilos C1-C3; y

(b1) el grupo de alquileo mismo puede opcionalmente ser sustituido por lo menos por un miembro
15 seleccionado del grupo que consiste de (i) hidroxil; (ii) cicloalcano C3-C8; (iii) 1-3 miembros seleccionados independientemente del grupo que consiste de alquilos C1-C3; fenil opcionalmente sustituido por 1-3 miembros seleccionados independientemente del grupo que consiste de alquilos C1-C3;
20 (iv) hidroxil alquilo C1-C3; y (v) alquil amina C1-C6; o $Y = Z^2$ en donde



en donde cada uno de R^{20} , R^{21} son seleccionados
25 independientemente del grupo que consiste de alquilenos C1-C10

44 39

lineales y ramificados; R^{22} es seleccionado del grupo que consiste de alcanos C1-C10 lineales y ramificados; y T es seleccionado del grupo que consiste de (i) un átomo trivalente seleccionado de N, P, y Al; y (ii) -CR, en donde R es
5 seleccionado del grupo que consiste de hidrógeno, metilo, etilo, propilo, isopropilo, una cadena de siloxano, y fenilo, en donde el fenilo puede opcionalmente ser sustituido por 1-3 miembros del grupo que consiste de metilo y etilo; y

10 (5) cada uno de $R^1 - R^4$ es independientemente seleccionado del grupo que consiste de metilo, etilo, propilo, isopropilo, una cadena de siloxano, y fenilo, en donde el fenilo puede opcionalmente ser sustituido por 1-3 miembros del grupo que consiste de metilo y etilo;

15

en donde la poliamida de la fórmula IIIA tiene:

(i) una parte de silicona en el lado ácido de la poliamida;

20

(ii) un peso molecular promedio de por lo menos de 30,000 daltons con por lo menos 95% de la poliamida teniendo un peso molecular mayor de 4,000 daltons; y

25

(iii) una polidispersidad de menos de 20;

(c) un activo antitranspirante usado en una cantidad para tener un efecto desodorante y/o antitranspirante; y

5 (d) gas propelante seleccionado del grupo que consiste de:

(1) propelantes de gas comprimidos seleccionados del grupo que consiste de gases inertes, dióxido de carbono, 10 óxido nitroso, y nitrógeno;

(2) propelantes de gas licuado seleccionados del grupo que consisten de:

15 (i) hidrocarburos seleccionados del grupo que consiste de gases de petróleo licuado;

(ii) flurocarbonos seleccionados del grupo que consiste de 1,1 Difluoroetano (152a) y 1,1,1,2 Tetrafluoroetano 20 (134a);

(iii) éteres; y

(iv) mezclas de los anteriores (i) - (iii).

25

2. Un producto antitranspirante/desodorante en aerosol que comprende:

- (a) alrededor de 2-20% por peso de ciclometicona;
- 5 (b) alrededor de 1-8% por peso de isopropil
palmitato;
- (c) alrededor de 0.5-3.5% por peso de aceite
mineral;
- 10 (d) alrededor de 0.3-4% por peso de alcohol de
isosteárido;
- (e) alrededor de 0.1-1.5% por peso de copolímero
dimeticona/nylon 611;
- 15
- (f) alrededor de 5-25% por peso de un activo
antitranspirante sólido;
- 20 (g) opcionalmente alrededor de 0.3-2.0% por peso
de un aceite de perfume; y
- (h) alrededor de 37-90% por peso de un gas
propelante;
- 25

en donde las cantidades están basadas sobre el
peso total de la composición.

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3. Un producto antitranspirante/desodorante en aerosol tal y como se reivindica en la cláusula 2, caracterizado porque la ciclometicona es D5, D6 o mezclas de ciclometiconas D5
5 y D6.

4. Un producto antitranspirante/desodorante en aerosol tal y como se reivindica en la cláusula 2, caracterizado porque comprende:

10

(a) alrededor de 5% por peso de ciclometicona;

(b) alrededor de 2.2% por peso de isopropil
palmitato;

15

(c) alrededor de 0.7% por peso de aceite
mineral;

(d) alrededor de 0.6% por peso de alcohol de
20 isostearilo;

(e) alrededor de 0.3% por peso de copolímero
dimeticona/nylon 611;

25 (f) alrededor de 5-25% por peso de un activo
antitranspirante sólido (especialmente 10%);

~~43~~ 43

(g) opcionalmente alrededor de 0.3-2.0% por peso de aceite de perfume (especialmente 1.0%); y

(h) alrededor de 37-90% por peso de un gas
5 propelante (especialmente 83%);

en donde las cantidades están basadas sobre el peso total de la composición.

10 5. Un producto antitranspirante/desodorante en aerosol tal y como se reivindica en la cláusula 2, caracterizado porque el gas propelante es uno o más gases seleccionados del grupo que consiste de:

15 (a) propelantes de gas comprimidos seleccionados del grupo que consiste de los gases inertes estándar de la industria de óxido de carbono, óxido nitroso y nitrógeno; y

(b) propelantes de gas licuado seleccionados de
20 los grupos que consisten de:

(1) hidrocarburos los cuales son gases de petróleo licuado seleccionados del grupo que consiste de propano, isobuteno, n-butano, es pentano y n-pentano;

44

(2) fluorocarbonos seleccionados del grupo que consiste de 1,1-difluoroetano (152a) y 1,1,1,2-tetrafluoroetano (134a);

5 (3) dietil éter; y

(4) mezclas de cualquiera de los anteriores.

6. Un producto antitranspirante/desodorante en aerosol tal y como se reivindica en la cláusula 1, caracterizado además porque comprende uno o más ingredientes adicionales seleccionados del grupo que consiste de emolientes, gomas de silicona, elastómeros, resinas de silicona, colorantes, fragancias, antimicrobiales, surfactantes y partículas inertes.

15

7. Un producto antitranspirante/desodorante en aerosol tal y como se reivindica en la cláusula 2, caracterizado además porque comprende uno o más ingredientes adicionales seleccionados del grupo que consiste de emolientes, gomas de silicona, elastómeros, resinas de silicona, colorantes, fragancias, antimicrobiales, surfactantes y partículas inertes.

20

8. Un producto antitranspirante/desodorante en aerosol tal y como se reivindica en la cláusula 1, caracterizado porque está libre de gomas de silicona, elastómeros, resinas de silicona, colorantes, fragancias, antimicrobiales, surfactantes y partículas inertes.

25

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9. Un producto antitranspirante/desodorante en aerosol tal y como se reivindica en la cláusula 1, caracterizado porque está libre de gomas de silicona, elastómeros, resinas de
5 silicona, colorantes, fragancias, antimicrobiales, surfactantes y partículas inertes.

R E S U M E N

Un antitranspirante/desodorante en aerosol que
comprende: (a) un sistema solvente para el gelante en una
5 cantidad de hasta 36% de la fórmula total; (b) de desde 0.1-
1.5% por peso basado sobre el peso total de la composición de
por lo menos una poliamida siliconizada como gelante; (c) un
activo antitranspirante usado en una cantidad para tener un
efecto desodorante y/o antitranspirante; y (d) un gas
10 propelante.

PATENT COOPERATION TREATY

98822

From the INTERNATIONAL SEARCHING AUTHORITY

To:
ROSEMARY M. MIANO
909 RIVER ROAD
PISCATAWAY, NJ 08855

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 7188-00	Date of Mailing (day/month/year) 17 MAR 2005
International application No. PCT/US04/06164	International filing date (day/month/year) 02 March 2004 (02.03.2004)
Applicant COLGATE-PALMOLIVE COMPANY	

1. ☒ The applicant is hereby notified that the international search report has been established and is 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 two months from the date of transmittal of the international search report.

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 is 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 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 90 bis.1 and 90 bis.3, respectively, before the completion of the technical preparations for international publication.

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 20 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 ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer <i>Marie J. Dodson</i> SHELLEY A. DODSON Telephone No. (703) 308-1235
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PCT/ISA/220

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 7188-00	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US04/06164	International filing date (day/month/year) 02 March 2004 (02.03.2004)	(Earliest) Priority Date (day/month/year) 04 March 2003 (04.03.2003)
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 2 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, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

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

3. ☐ Unity of invention is lacking (See Box II).

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 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. ____

☐ as suggested by the applicant.

☐ None of the figures

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/06164

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 7/00, 7/32, 7/34, 7/36, 7/38

US CL : 424/65, 66, 67, 68, 400, 401

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)

U.S. : 424/65, 66, 67, 68, 400, 401

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST, WEST, DIALOG, CAS ONLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,451,295 B1 (CAI ET AL.) 17 SEPTEMBER 2002, SEE ENTIRE DOCUMENT.	1-9
A	US 6,342,210 B1 (CAI ET AL.) 29 JANUARY 2002, SEE ENTIRE DOCUMENT.	1-9
A	US 5,874,069 A (MENDOLIA ET AL.) 23 FEBRUARY 1999, SEE ENTIRE DOCUMENT.	1-9

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

Special categories of cited documents:	
* "A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understate the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"A" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 11 February 2005 (11.02.2005)	Date of mailing of the international search report 17 MAR 2005
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer SHELLEY A. DODSON Telephone No. (703) 308-1235

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
ROSEMARY M. MIANO
909 RIVER ROAD
PISCATAWAY, NJ 08855

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) **17 MAR 2005**

Applicant's or agent's file reference

7188-00

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US04/06164

International filing date (day/month/year)

02 March 2004 (02.03.2004)

Priority date (day/month/year)

04 March 2003 (04.03.2003)

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

IPC(7): A61K 7/00, 7/32, 7/34, 7/36, 7/38 and US Cl.: 424/65, 66, 67, 68, 400, 401

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 be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that 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 66.1bis(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 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

SHELLEY A. DODSON

Telephone No. (703) 308-1235

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No. **51**

PCT/US04/06164

Box No. I Basis of this 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 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/US04/06164

52

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

1. Statement

Novelty (N)	Claims 1-9	YES
	Claims NONE	NO
Inventive step (IS)	Claims NONE	YES
	Claims 1-9	NO
Industrial applicability (IA)	Claims 1-9	YES
	Claims NONE	NO

2. Citations and explanations:

Claims 1-9 meet the criteria under PCT Article 33(4) having industrial applicability because the claimed invention can be used as an antiperspirant or deodorant.

Claims 1-9 lack an inventive step under PCT Article 33(3) as being obvious over Cai et al. USP 6,451,295 B1. The cited prior art is directed toward clear antiperspirants and deodorants made with silicone-based polysiloxanes having the same structural formula claimed in the instant invention. The prior art discloses that said antiperspirant and/or deodorant compositions are in gel or stick form and not aerosol.

IN THE INTERNATIONAL PATENT OFFICE

1 98822
X 53

Applicant: Colgate-Palmolive Company
Inventors: Anthony ESPOSITO, Aixing FAN
International Application No.: PCT/US2004/006164
International Filing Date: March 2, 2004
Priority Date: March 4, 2003
(based on U.S. Serial No. 60/451,282)
Authorized Officer: Shelley A. Dodson

Tel.: (703-308-1235)
Fax: (703-305-3230)

Title: Aerosol Antiperspirant With Polyamide

VIA FACSIMILE (703-305-3230)

RESPONSE TO WRITTEN OPINION
OF THE INTERNATIONAL SEARCHING AUTHORITY

May 5, 2005

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This paper responds to the Written Opinion of March 17, 2005.

The above-identified application is directed to antiperspirant/deodorant aerosol product which utilizes siliconized polyamide gellant.

U.S. 6,451,295 discloses as antiperspirant and/or deodorant compositions, especially clear sticks having good structural integrity. There is no teaching in U.S. 6,451,295 of the inventive step of using siliconized polyamide gellants in a non-structured antiperspirant or deodorant aerosol product. There is no suggestion in U.S. 6,451,295 that siliconized polyamide gellants would be effective in aerosol products. In the absence of applicants' disclosure, there is no reason why one seeking to prepare an aerosol product would be motivated by the solid antiperspirant product teachings of U.S. 6,451,295 to utilize the siliconized polyamide in the preparation of an aerosol product and therefore such utilization represents a patentable inventive step.

In view of the foregoing remarks, a favorable Examination Report is earnestly solicited with regard to the pending claims.

Date: May 5, 2005

Respectfully submitted,



Tara Rachinsky
Reg. No. 47,875

Colgate-Palmolive Company
909 River Road
Piscataway, NJ 08855
U.S.A.

Tel: (732) 878-7606
Fax: (732) 878-7660

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/ US

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 7188-00	
International application No. PCT/US2004/006164	International filing date (day/month/year) 02 March 2004 (02.03.2004)
(Earliest) Priority date (day/month/year) 04 March 2003 (04.03.2003)	
Title of invention AEROSOL ANTIPERSPIRANT WITH POLYAMIDE	
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, NY 10022 United States of America	
Telephone No. 732-878-7606	
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.) ESPOSITO, Anthony 414 East Third Avenue Roselle, New Jersey 07203 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.) FAN, Aixing 44 Reinhart Way Bridgewater, New Jersey 08807 United States of America	
State (that is, country) of nationality: CN	State (that is, country) of residence: US
☐ Further applicants are indicated on a 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 earlier.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.)

RACHINSKY, Tara L.
Colgate-Palmolive Company
909 River Road, P.O. Box 1343
Piscataway, New Jersey 08855-1343
United States of America

Telephone No.

732-878-7606

Facsimile No.

732-878-7853

Teleprinter No.

Agent's registration No. with the Office

47,875

☐ 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 filedthe description ☒ as originally filed☐ as amended under Article 34the claims ☒ as originally filed☐ as amended under Article 19 (together with any accompanying statement)☐ as amended under Article 34the drawings ☐ as originally filed☐ as amended under Article 342. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.3. ☐ 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 | : | 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 | : | 2 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).


Tara L. Rachinsky

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 60.1(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:

PCT

FEE CALCULATION SHEET

Annex to the Demand

International application No. PCT/US2004/006164 Applicant's or agent's file reference 7188-00 Applicant COLGATE-PALMOLIVE COMPANY et al.	For International Preliminary Examining Authority use only Date stamp of the IPEA								
CALCULATION OF PRESCRIBED FEES 1. Preliminary examination fee EU 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>) EU 129 H 3. Total of prescribed fees Add the amounts entered at P and H and enter total in the TOTAL box EU 1659 TOTAL									
MODE OF PAYMENT <table style="width: 100%;"> <tr> <td>☒ authorization to charge deposit account with the IPEA (see below)</td> <td>☐ cash</td> </tr> <tr> <td>☐ cheque</td> <td>☐ revenue stamps</td> </tr> <tr> <td>☐ postal money order</td> <td>☐ coupons</td> </tr> <tr> <td>☐ bank draft</td> <td>☐ other (specify):</td> </tr> </table>		☒ 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 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 (This mode of payment may not be available at all IPEAs) <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> ☒ Authorization to charge the total fees indicated above. ☒ (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. </td> <td style="width: 50%; vertical-align: top;"> IPEA/ <u>US</u> Deposit Account No.: <u>03-2455</u> Date: <u>05 May 2005</u> Name: <u>Tara L. Rachinsky</u> Signature: <u><i>Tara L. Rachinsky</i></u> </td> </tr> </table>		☒ Authorization to charge the total fees indicated above. ☒ (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.	IPEA/ <u>US</u> Deposit Account No.: <u>03-2455</u> Date: <u>05 May 2005</u> Name: <u>Tara L. Rachinsky</u> Signature: <u><i>Tara L. Rachinsky</i></u>						
☒ Authorization to charge the total fees indicated above. ☒ (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.	IPEA/ <u>US</u> Deposit Account No.: <u>03-2455</u> Date: <u>05 May 2005</u> Name: <u>Tara L. Rachinsky</u> Signature: <u><i>Tara L. Rachinsky</i></u>								

C C ~~59~~

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 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.)

Kristyne A. Bullock, Bernard Lieberman, Ellen K. Park, Tara L. Rachinsky, Clifford E. Wilkins, Jr. and Harrie A. Wolin of

COLGATE-PALMOLIVE COMPANY
909 River Road
P.O. Box 1343
Placataway, 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

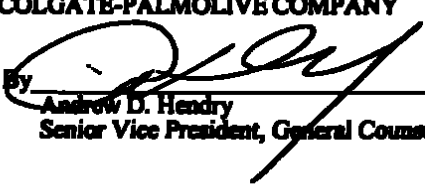
RO/US

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):*

COLGATE-PALMOLIVE COMPANY

By 

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

Date: December 21, 2004

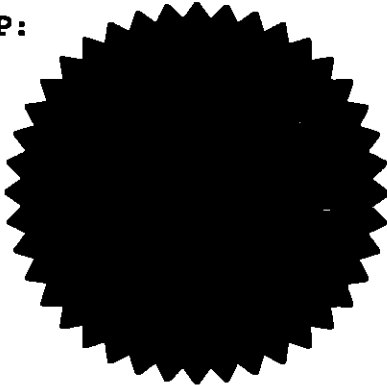
APOSTILLE

(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 14TH DAY OF SEPTEMBER 2005
7. BY: John E McCormac, CPA, NEW JERSEY TREASURER
8. NO. A238634
9. SEAL/STAMP:
10. SIGNATURE



John E McCormac

STATE OF NEW JERSEY }
County of Middlesex } ss.

61

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 foregoing 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

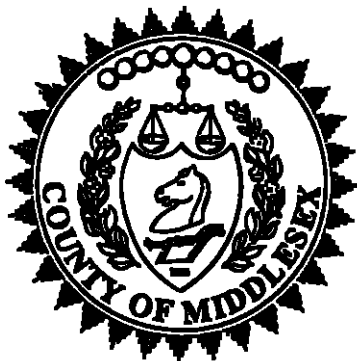
he was duly authorized by the laws of the State of New Jersey to take and certify depositions; to administer oaths and affirmations; to take affidavits and certify the acknowledgment and proof of deeds and other written instruments for lands, tenements and hereditaments to be read in evidence or recorded 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 31 day
of AUGUST 2005

Elaine M. Flynn
CLERK.



63 62

COUNTY OF MIDDLESEX

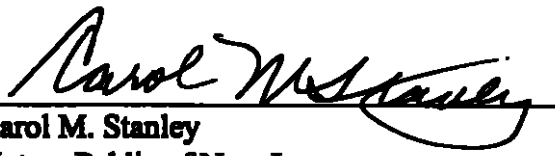
STATE OF NEW JERSEY ,

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. 60/451,282 filed March 4, 2003.


Harris A. Wolin
Senior Patent Attorney

Subscribed and sworn to
before me this 30 day
of August, 2005.


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

Columbia

7188-00

ASSIGNMENT

WHEREAS, we, Anthony Esposito and Aixing Fan (below referred to as ASSIGNORS), residing, respectively, as set forth hereinafter, have made an invention entitled **Aerosol Antiperspirant with Polyamide** for which ASSIGNORS have filed a Provisional Application in the United States on March 4, 2003, under Provisional Application No. 60/451,282; 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. provisional patent application and all corresponding U.S. non-provisional and 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: March 4, 2003
(date of filing)

64

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 24 day of August 2005.

Name: Anthony Esposito

Address: 414 E. Third Ave.
Roselle, NJ 07203

State of
County of

On this 24 day of August 2005, 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.

NOTARY PUBLIC

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 24 day of August 2005.

Name: Aixing Fan

Address: 44 Reinhart Way
Bridgewater, NJ 08807

State of New Jersey
County of Middlesex

On this 24 day of August 2005, 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.

NOTARY PUBLIC

CAROL M. STANLEY
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES NOV. 18, 2005

65

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 26 day of August 2005.

Anthony Esposito
Name: Anthony Esposito

Address: 414 E. Third Ave.
Roselle, NJ 07203

State of
County of

On this ____ day of _____ 2005, 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.

Sworn to and subscribed before me
this 26th day of August 2005

NOTARY PUBLIC
MARK CRESPO
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES FEB. 13, 2009

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this ____ day of _____ 2005.

Name: Aixing Fan

Address: 44 Rainhart Way
Bridgewater, NJ 08807

State of New Jersey
County of Middlesex

On this ____ day of _____ 2005, 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.

NOTARY PUBLIC

66.



**TRADUCCIÓN AL ESPAÑOL del 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 14 DE SEPTIEMBRE DE 2005**
- 7. POR John E. McCormac, CPA, TESORERO DE NEW JERSEY**
- 8. NO. A238634**
- 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 la copia anexa al presente es una fotocopia verdadera de la cesión como base de U.S. número de serie provisional 60/451,282 presentada el 4 de marzo de 2003.

(Firma)

Harris A. Wolin

Abogado principal de patentes

Suscrito y jurado

Ante mi este 30

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. Flinn, 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, e firmado el presente y fijado el sello del Condado de Middlesex este 31 de agosto de 2005.

Elaine M. Flinn (Firma)

60

CESION

CONSIDERANDO QUE, nosotros, Anthony Esposito y Aixing Fan (referidos debajo como CEDENTES) quienes residen, respectivamente, como se establece adelante, hemos hecho una invención titulada **Antitranspirante en aerosol con poliamida** para la cual los CEDENTES han presentado una solicitud provisional en los Estados Unidos el 4 de marzo de 2003, bajo el número de solicitud provisional 60/451,282; 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 Propiedad Industrial, Convención Interamericana Relacionada con Patentes, Diseños y Modelos Industriales, y cualquier otro acuerdo internacional al cual se adhieran los Estados Unidos de América y los CEDENTES por la presente autorizan y solicitan al Comisionado de Marcas y Patentes de los Estados Unidos y a todas las Oficinas de Patentes extranjeras a emitir todas las patentes o derechos comparables que puedan surgir de cualquier solicitud al CESIONARIO, o sus sucesores, cesionarios o representantes legales;

Los CEDENTES garantizan que los CEDENTES tienen pleno derecho para comunicar la totalidad del interés aquí cedido, y que 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 por la presente autorizan a los abogados del CESIONARIO a ingresar en este documento cualquier número de serie y fecha de presentación aplicables después que el CEDENTE ha ejecutado este documento.

Esta Cesión es efectiva desde Marzo 4 de 2003
(Fecha de presentación)

 69

EN TESTIMONIO DE LOS CUAL, he puesto mi firma y fijado mi sello este _____
de _____ de 2005.

Nombre: Anthony Esposito
Dirección: 414 E. Third Ave.
Roselle, NJ 07203

Estado
Condado de

Este _____ de _____ de 2005, ante mí, un Notario Público en y para el
Estado y Condado referenciados arriba, apareció personalmente el arriba firmante, a
quien conozco como la persona de ese nombre, quien ejecutó el instrumento anterior en
mi presencia.

NOTARIO PUBLICO

Suscrito y jurado ante mí
este 26 de agosto de 2005

MARIA CRESPO
NOTARIO PUBLICO DE NEW JERSEY
MI COMISION EXPIRA FEB. 13 DE 2009

EN TESTIMONIO DE LOS CUAL, he puesto mi firma y fijado mi sello este ____ de
_____ de 2005.

Nombre: Aixing Fan
Dirección: 44 Reinhart Way
Bridgewater, NJ 08807

Estado de New Jersey
Condado de Middlesex

Este _____ de _____ de 2005, ante mí, un Notario Público en y
para el Estado y Condado referenciados arriba, apareció personalmente el arriba firmante,
a quien conozco como la persona de ese nombre, quien ejecutó el instrumento anterior en
mi presencia.

NOTARIO PUBLICO

Apostille

(Convention de La Haye du 5 Octobre 1961)

7/ 20

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

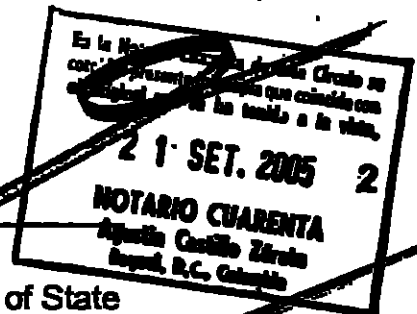
10. Signature



Aqil M. Qureshi

Aqil M. Qureshi

Special Deputy Secretary of State



SANTA FE DE BOGOTA - COLOMBIA

POWER OF ATTORNEY

1. Wel

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

Hereby appoint RAMIRO CASTRO DUQUE and/or
JUAN PABLO CADENA SARDIENTO 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 commercial names and emblems, registration of copyright and contracts related thereto, certificates of obtainment of vegetable varieties, as well as extensions, renewals and recordal 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 safeguarding of my (our) interest(s) with all the other necessary legal powers.

En la Noche Cuarenta y Seis Credo en

the faculty to ratify or confirm
to substitute this power in whole or in part and to
revoke substitutions at the same time I (We) hereby
appoint RAMIRO CASTRO DUQUE and/or JUAN
ARMANDO SARMIENTO and/or BEATRIZ
Agustín Castro Lora
República de Colombia Carrera 7 No. 16-56, Piso 9, my (our)
attorney(s) in fact, with powers to receive notifications
and to designate judicial and extrajudicial attorneys.

Granted and signed in **New York, N.Y.**

VICE PRESIDENT &
ASSOCIATE GENERAL COUNSEL
TRADEMARK

Signature Robert M. Thompson
Name _____

SCOTT E THOMPSON

24-20



252373

County of New York, ss.
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

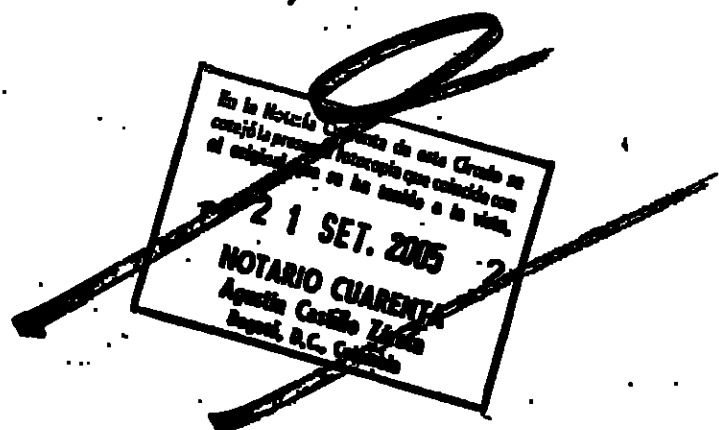
whose name is subscribed to the annexed affidavit, deposition, certificate of acknowledgment or proof, was at the time of taking the same a NOTARY PUBLIC in and for the State of New York duly commissioned, sworn and qualified to act as such; that pursuant to law, a commission or a certificate of his 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



2001 OCT 30
FEBRERO 1 2002
NEW YORK

CERTIFICADO NOTARIAL (SOCIEDAD)

NOTARIAL CERTIFICATE (CORPORATION)

24 73

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 al 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 pruebas de la existencia de la sociedad.

Estado de
con fecha

y, que quien confiere el presente poder es su representante.

On this OCT 29 2001 day of personally appeared before me

SCOTT E THOMPSON
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

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 (she) who grants the present power of attorney is its Representative.

Notario Público (sello)

Rosie
Notary Public

CERTIFICADO NOTARIAL
PERSONA NATURAL

COUNTY

ROSIE S. DIZON
Notary Public, State of New York
No. 31-4941117
Qualified in New York County
Commission Expires Aug. 15, 2002

Hoy de de , compareció(eron)
ante mí

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

On this OCT 29 2001 day of personally appeared before me

SCOTT E THOMPSON
who are known to me and who I attest executed the foregoing document and he (they) grant(s) the document for the purposes therein expressed.

Notario Público (sello)

Es la Notaría Cuarenta de este Estado se
colgó por sistema fotocopia que colgada que
el original que se le tenía a la vista
21 SET. 2005
NOTARIO CUARENTA
Agustín Carlos Zárate
Bogotá, D.C., Colombia

Rosie
Notary Public (S)

ROSIE S. DIZON
Notary Public, State of New York
No. 31-4941117
Qualified in New York County
Commission Expires Aug. 15, 2002

LEGALIZACION POR APOSTILLA ES REQUERIDA.

LEGALIZATION BY

74

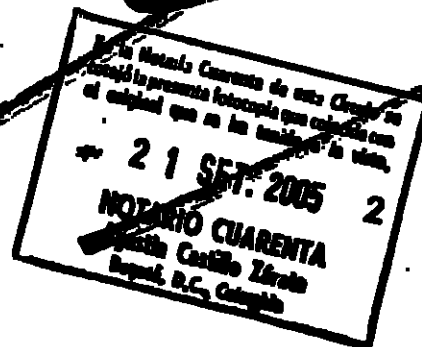
APOSTILLE

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

1. País: ESTADOS UNIDOS DE AMERICA
Este documento público
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



25

TRADUCCIÓN SIMPLE AL ESPAÑOL del Certificado Notarial y el la apostilla que vienen
junto con el poder dado por Colgate-Palmolive Company, a Delaware Corporation,
domiciliada en 300 Park Avenue, New York, New York, Estados Unidos de América a
Ramiro Castro Duque y/o Juan Pablo Cadena Sarmiento y/o Beatriz Jaramillo S.
domiciliados en la Carrera 7 # 16-56 P. 9, Bogotá.

Certificado Notarial

Estado de New York)

252373

) 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.

CERTIFIÇO POR MEDIO DE LA PRESENTE de acuerdo con la Ley
Ejecutiva del Estado de New York, que

Rosie S. Dizon

cuyo nombre está suscrito al acta notarial, deposición, certificado de
reconocimiento o prueba, era al momento de tomar el mismo NOTARIO PÚBLICO
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 PÚBLICO o he comparado la firma en el
instrumento anexo con la firma autógrafa depositada en mi oficina, y creo que tal
firma es genuina.

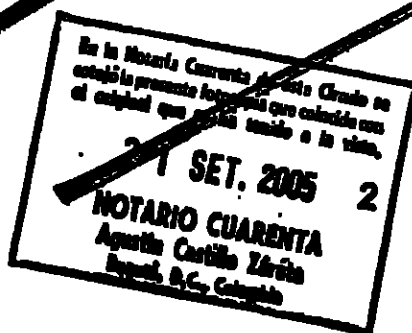
COMO TESTIGO DE LO MISMO, he fijado al presente mi firma t mi sello
oficial este

30 de Octubre de 2001

TARIFA PAGADA \$3.00

(Firma)

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





GAVIRI

7/76

ORGANIZACION ELECTORAL
REGISTRADURIA NACIONAL DEL ESTADO CIVIL

REGISTRO CIVIL DE DEFUNCIÓN

Indicativo
Serial

5562241

Datos de la oficina de registro											
Clase de oficina:	Registraduría	Notaría	☒	Consulado		Corregimiento		Insp. de Policía		Código	9995
País - Departamento - Municipio - Corregimiento o 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 o 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		
Juzgado que profiere la sentencia	Fecha de la sentencia	
Documentos presentados	Nombre y cargo del funcionario	
Autorización Judicial ☐ Certificado Médico ☒	ANDRES DIAZ CAMPOS R. M. No. 79982662	

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

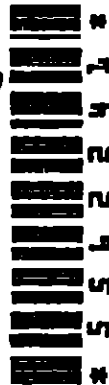
Primer testigo	
Apellidos y nombres completos	
Documento de identificación (Clase y número)	Firma

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

Fecha de inscripción		Nombre y firma del funcionario que inscribe	
Año 2004 Mes 11 Día 02		BLANCA ROSA GONZALEZ RESTREPO	

PADRES: ALFONSO CASTRO		ESPACIO PARA NOTAS
MERCEDES DUQUE		

ORIGINAL PARA LA OFICINA DE REGISTRO

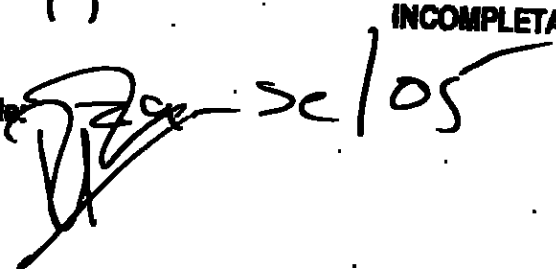


78 77

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 fotográfica 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:

 50105

Fecha:

750

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

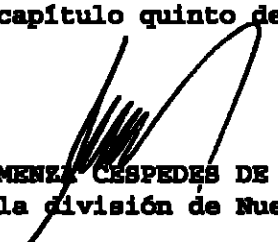
REFERENCIA	Radicación No.	5 98880
	Solicitud internacional	US2004/006164
	Fecha inicio fase nacional	04/10/2005
	Trámite	11
	Evento	379
	Actuación	430, 1096
	Oficio No.	

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. Si fuere el caso, el solicitante debe adjuntar la traducción de los anexos del reporte de examen preliminar internacional (Art. 36.2.b) del tratado PCT.

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 Unica No.10 de 2001.


ALIX CARMEN CÉSPEDES DE VERGEL
Jefe de la división de Nuevas Creaciones

El anterior requerimiento fue notificado por fijación en lista de
fecha 25 NOV. 2005
adpal