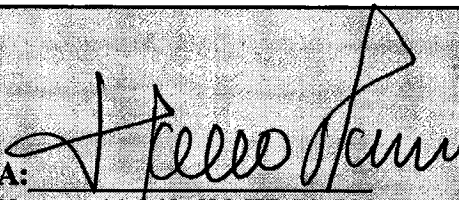


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 Industria y Comercio SUPERINTENDENCIA	SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO  No. 06-127979- -00005-0000 Fecha: 2009-05-12 16:47:23 Dep. 2020 NUECREACIONE Tra. 11 PATENTEIYII Eve: 378 FASENACIONALI Act. 329 CTO:INFORMACION Folios: 11	icación
FORMULARIO ÚNICO DE CORRECCIONES Y MODIFICACIONES		
SOLICITUD DE: ☐ Corrección error material ☒ Modificación de una solicitud		
SOLICITANTE	Nombre: HENKEL AG & Co. KGaA Dirección: Henkelstrasse 67, 40589 Domicilio: DÜSSELDORF, ALEMANIA. Lugar de Constitución:	IDENTIFICACIÓN ☐ C.C. ☐ NIT ☐ C.E. ☐ Otro Cual _____
	Teléfono: Fax: E - mail:	Número:
REPRESENTANTE O APODERADO	Nombre: MAURICIO PATIÑO BONNET Dirección: Cr. 9 # 74-08 Oficina 403 Teléfono: 3268600 Fax: 3268610 E-mail: patmarks@prietocarrizosa.com.co	IDENTIFICACIÓN ☒ C.C. ☐ NIT ☐ C.E. ☐ Otro Número: 11.342.699 TP: 73.583
Número de Expediente: 06 127979		
Descripción de la corrección o modificación solicitada: La sociedad solicitante cambió su nombre de HENKEL KGaA a <u>HENKEL AG & Co. KGaA</u> , por lo que solicito se inscriba dicho cambio en el expediente de la solicitud.		
Comprobante de pago No: 09 – 28, 883 Fecha: 17 de abril de 2009		
Anexos: ☒ Comprobante de pago de la tasa. ☒ Poder, si fuere el caso. ☒ Documentos que acredita la existencia y representación legal, cuando el solicitante sea persona jurídica		
NOMBRE: MAURICIO PATIÑO BONNET FIRMA:  C.C. Número 11.342.699 TP 73.583		
Instrucciones para el diligenciamiento del presente formulario, ver reverso de esta página.		



SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT : 800176089-2

RECIBO OFICIAL DE CAJA : 09 - 28,883
FECHA : ABRIL 17 DE 2009

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 06-127979- -00005-0000

Fecha: 2009-05-12 16:47:23 Dep. 2020 NUECREACIONE
Tra. 11 PATENTEIYII Eve: 378 FASENACIONALI
Act. 329 CTOINFORMACION Folios: 11

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PGO	Vr. PAGO
PRIETO & CARRIZOSA S.A	CONSIGNACION	BANCO DE BOGOTA	062754387	115270956	17/04/2009	28,676,000.00

***** CONCEPTO *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-03	CAMBIO DE MODALIDAD Y MODIFICA	
12		MARCAS Y LEMAS COMERCIALES	111,000.00
		TOTAL :	\$ 111,000.00

SON: CIENTO ONCE MIL PESOS

RESPONSABLE : _____

RECIBO DE CAJA APLICADO AL EXPEDIENTE No. _____

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Bescheinigung einer juristischen Person

Ich, der unterzeichnende Notar, bestätige hiermit in meiner Eigenschaft als Notar aufgrund heutiger Einsichtnahme in das Handelsregister des Amtsgerichts Düsseldorf zu HRB 4724, dass die Firma Henkel KGaA gemäß handelsregisterlicher Eintragung mit Datum 15.04.2008 ihren Namen auf Henkel AG & Co. KGaA abgeändert hat.

Düsseldorf, den 20. November 2008


Dr. Norbert Zimmermann
Notar

APOSTILLE

(Convention de La Haye du 5 octobre 1961)

1. Land: Bundesrepublik Deutschland

Diese öffentliche Urkunde

2. ist unterschrieben von Notar Dr. Zimmermann

3. in seiner Eigenschaft als Notar in Düsseldorf

4. sie ist versehen mit dem Siegel/Stempel des Notars

Bestätigt

5. in Düsseldorf 6. am 04. Dez. 2008

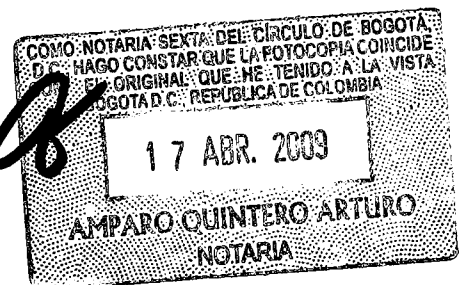
7. durch den Präsidenten des Landgerichts

8. unter Nr. 9101 Ea - 5782/2008

9. Stempel:

10. Unterschrift:

(Dr. Blaesing)



Traducción del idioma alemán no.: 377/09

Certificación de una persona jurídica

Mediante la presente, yo, el suscrito notario certifico en mi calidad de notario, a raíz de una revisión del registro de comercio del juzgado oficial de Düsseldorf sobre HRB 4724, efectuada el día de hoy, que de acuerdo al registro comercial con fecha del 15.04.2008 la empresa Henkel KGaA modificó su nombre a Henkel AG & Co. KGaA.

Düsseldorf, el 20 de noviembre de 2008.

Hay una firma ilegible y un sello redondo, Dr. Norbert Zimmermann, Notario en Düsseldorf.

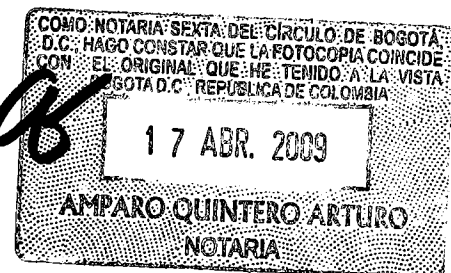
Apostilla

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

1. País: República Federal de Alemania

Este documento público

2. ha sido firmado por el notario Dr. Zimmermann



Jose Luis G. G. G.
Notario
Te doy fe y hago constar
Resolución No. 2008 de 2008
1994

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3. en su calidad de notario en Düsseldorf
4. está provisto con el sello del notario

Confirmado

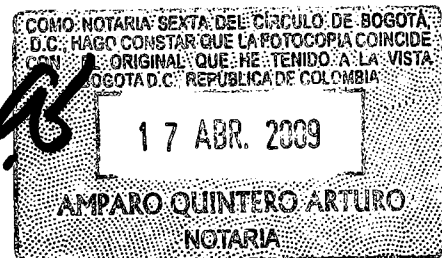
5. en Düsseldorf
6. el 4 de diciembre de 2008
7. por el presidente del juzgado regional
8. bajo el no. 9101 Ea - 5782/2008
9. Sello: Hay un sello redondo del presidente del juzgado regional Düsseldorf
10. Firma: hay una firma ilegible, Dr. Blaesing

NO SE ASUME
RESPONSABILIDAD
DEL TEXTO

901607
Dorothee Grote
SECRETARÍA DE
COMUNICACIONES

MINISTERIO DE
RELACIONES EXTERIORES

2009 ABR 17 A 11:12
QUIRO
SECRETARÍA DE
COMUNICACIONES



Dorothee Grote
Tr. Suramericana Interpretación y Traducción
Bogotá D.C. 2008 de 2008
1994

CECBA - LEY 404 GCBA
LEGALIZACION
081001 489401



01/10/2008 \$20.00 10:38:33

CECBA - LEY 404 GCBA
APOSTILLA
081001 076570



01/10/2008 \$39.00 10:38:38

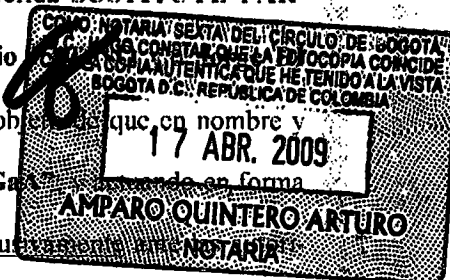


ACTUACION NOTARIAL



N-809829309

1 FOLIO 640.- PRIMERA COPIA.- ESCRITURA NÚMERO: CIENTO CUA-
2 RENTA.- SUSTITUCIÓN PARCIAL DE PODER: MESSERER, Dagmar a fa-
3 vor de PATIÑO, Mauricio y otros del Poder otorgado por HENKEL AG & CO.
4 KGaA.- En la Ciudad Autónoma de Buenos Aires, Capital de la República Argentina,
5 el día TREINTA de SEPTIEMBRE del año DOS MIL OCHO, ante mí María Sil-
6 vina Lasarte, Escribana Autorizante, titular del Registro Notarial número 1788,
7 COMPARECE: Dagmar MESSERER, argentina, nacida el 28 de mayo de 1.968,
8 hija de Walter Messerer y Elsa Onelia Romanelli, soltera, titular del Documento Na-
9 cional de Identidad Número 20.383.892, Clave Única de Identificación Tributaria nú-
10 mero 27-2038389-27, domiciliada legalmente en la Avenida Leandro N. Alem 1.134,
11 Piso 10º, de esta Ciudad de Buenos Aires.- La compareciente es mayor de edad.- IN-
12 TERVIENE: por su propio derecho.- Y la compareciente EXPRESA: PRIMERO:
13 Que la Sociedad "HENKEL AG & CO. KGaA", con domicilio en Henkelstrasse 67,
14 40589, Düsseldorf, Alemania, le confirió con fecha 29 de Julio de 2.008 en dicho país,
15 un Poder, el cual mediante escritura número 125 de fecha 3 de Septiembre de 2008.
16 otorgada ante mí, al folio 551, protocolo corriente de este Registro Notarial a mi car-
17 go, fue incorporado y transcripto al mismo, cuya primera copia tengo para este acto a
18 la vista, doy fe y en lo pertinente transcribiré en la presente.- SEGUNDO: Manifiesta
19 bajo juramento que el referido poder se encuentra plenamente vigente en virtud de no
20 haberle sido revocado, suspendido ni limitado en ninguna de sus partes.- TERCERO:
21 En consecuencia, DICE: Que en uso de la facultad conferida SUSTITUYE PAR-
22 CIALMENTE el poder mencionado a favor de Mauricio
23 TERLIZZI y/o Martín CARRIZOSA, al solo y único objeto de que en nombre y
24 representación de la Sociedad "HENKEL AG & CO. KGaA" actuando en forma
25 individual, indistinta y/o alternadamente, se presente exclusivamente en





ACTUACIÓN NOTARIAL

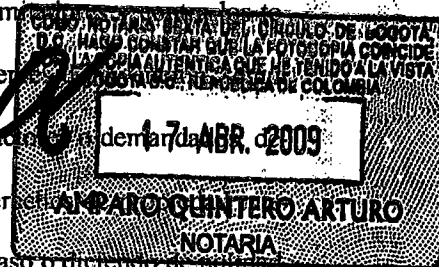
LEY 404



N° 008829310

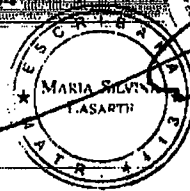
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1 respectiva traducción a idioma nacional, el que agrego a la presente y transcripto di-
2 ce: "MOELLER & CO. (Sigue aclaración en idioma inglés) - Poder Los abajo firman-
3 te/s Henkel AG & Co. KGaA domiciliados en Henkelstrasse 67 40589 Düsseldorf
4 Alemania declaran por el presente otorgar a Gerardo MESSERER y/o Dagmar MES-
5 SERER y/o Karen MESSERER y/o MOELLER & CO. S.A. indistintamente poder
6 general amplio y suficiente para recabar de las autoridades ..., sud y centroamericanas
7 ... que correspondan, la obtención de patentes de invención, el registro y la renova-
8 ción de marcas y modelos y/o derechos de propiedad intelectual y/o nombres de do-
9 minio, a cuyo efecto los faculta/n para llevar a cabo ante dichas autoridades todas las
10 gestiones necesarias al objeto indicado, presentar solicitudes, formular descripciones,
11 oposiciones, protestos, declaraciones, apelaciones y reclamos, oblar impuestos, justifi-
12 car explotaciones, solicitar testimonios, aceptar transferencias, recibir documentos y
13 valores, percibir y hacer cuanto fuere necesario ante las autoridades administrativas de
14 cualquier orden. Por otra parte, les confieren mandato para que en su nombre y repre-
15 sentación puedan iniciar y proseguir cualquier juicio que actualmente los que suscri-
16 ben tengan o en el futuro tuvieran ..., en Sudamérica, Centroamérica ..., con motivo
17 de su nombre, marcas de fábrica o de comercio, patentes de invención y modelos y/o
18 de sus derechos de propiedad intelectual que actualmente posean o adquieran en lo
19 sucesivo, promover juicios de cualquier jurisdicción, criminales, correccionales, civi-
20 les o comerciales, contra los falsificadores, usurpadores o imitadores de
21 nombres de artículos que infrinjan su nombre, marcas o patentes, y/o de derechos
22 los juicios por oposición u otros en que fueran parte como demandados o demandan-
23 tender el nombre, las marcas, patentes y modelos y/o de derechos de propiedad
24 lectual y/o nombres de dominio, haciendo las protestas del caso o diciendo de verdad.
25 Al efecto, podrán presentarse con escritos, querellas, pedidos, y lo que fuere necesario





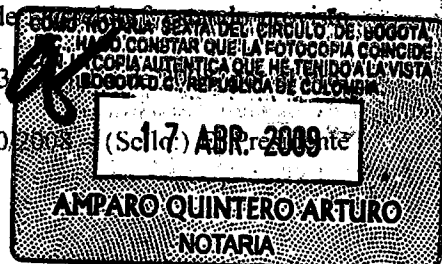
ACTUACION NOTARIAL
LEY 404



N-009876431

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1 de Düsseldorf bajo el número HRB 4724. Dra. Birgit Stevermann como "Prokurist"
2 (con procura registrada) y el Dr. Helmut Endres como "Prokurist" (con procura regis-
3 trada) de la AG & Co KGaA están debidamente autorizados a representar y actuar
4 legalmente con autorización conjunta para y en favor de la KGaA. Certifico lo ante-
5 rior después de la inspección de hoy día del Registro Mercantil de Düsseldorf No.
6 HRB 4724. Düsseldorf, 29 de julio de 2008.- (Hay un sello en oblica sobre precinto.)
7 Sigue una firma ilegible (Aclarado:) Dr. Norbert Zimmermann Notario".- ES COPIA
8 FIEL, doy fe.- Al dorso consta la respectiva legalización de la firma y sello del nom-
9 brado notario, en idioma alemán, efectuada por el Presidente del Tribunal Regional de
10 Düsseldorf, Alemania, Doctor Blacsing (Sello de Apostilla de la Convención de La
11 Haya del 5 de octubre de 1961).- En hoja adjunta sigue la referida traducción al idio-
12 ma nacional la que transcriba textualmente, dice: "TRADUCCIÓN PÚBLICA. (Sobre
13 papel con membrete de MOELLER & CO - América Latina - Agentes de la Propie-
14 dad Intelectual figura un PODER otorgado en idioma nacional, por la Sociedad "Hen-
15 kel AG & Co. KGaA" con sede en Düsseldorf, Alemania, a continuación del que apa-
16 recen los siguientes textos, que traducidos dicen:) - Dado y firmado en Düsseldorf, el
17 29.07.2008 - "Henkel AG & Co. KGaA" - (Firmado y aclarado:) pp. Dra. Birgit Ste-
18 vermann - Dr. Helmut Endres (A continuación figura una certificación notarial en
19 idioma nacional firmada por el Escribano Dr. Norbert Zimmermann así como un sello
20 en oblica sobre precinto:) Dr. Norbert Zimmermann; Escribano de Düsseldorf. (Se-
21 llo:) APOSTILLA (Convención de La Haya del 5 de octubre de 1961) - País: Repú-
22 blica Federal de Alemania -- Este instrumento público fue firmado por el Escribano
23 Dr. Zimmermann, actuando en carácter de Escribano de la Ciudad de Düsseldorf, el 29 de julio de 2008.
24 de sello del Escribano. Certificado en Düsseldorf, el 30 de julio de 2008.
25 sidente del Tribunal Regional con el N° 9101 Ea-3690/2008 (Sello) ABR. 2009



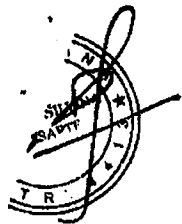


ACTUACION NOTARIAL

LEY 404

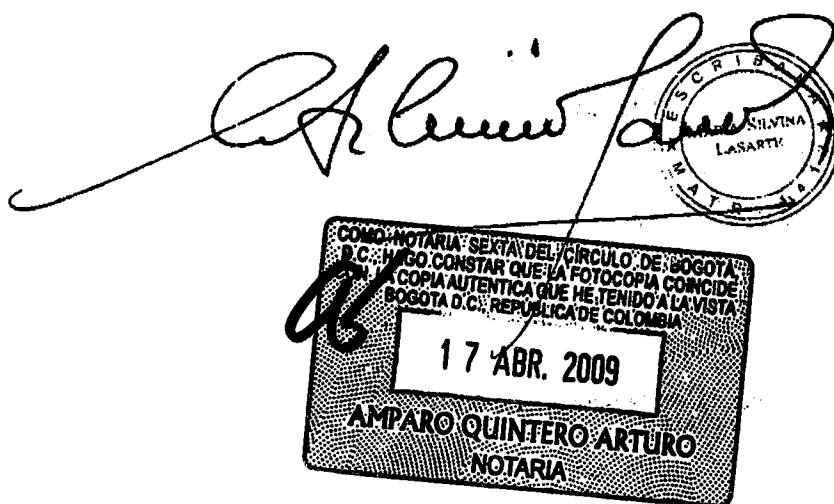


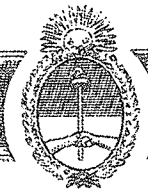
N 009876432



1 llo notarial."- **ES COPIA FIEL**, de las partes pertinentes de la escritura de referen-
2 cia, doy fe.- **CUARTO**: Finalmente la compareciente expresa: a) Que el presente
3 otorgamiento no significa renunciar al ejercicio de las facultades sustituidas; y b) Que
4 los nombrados apoderados sustitutos no podrán sustituir el presente poder en ninguna
5 de sus partes.- **Constancias Notariales: Identidad de la Compareciente (Artículo**
6 **1.002 del Código Civil)**: Se justifica la misma por conocimiento de la Autorizante.-
7 Informo a la compareciente respecto de los alcances de las cláusulas contenidas en la
8 presente escritura y del derecho de leer por sí este instrumento.- **LEO** esta escritura a
9 la compareciente, quien así la otorga y en prueba de conformidad la firma ante mí,
10 doy fe.- Dagmar MESSERER. Ante mí: **MARÍA SILVINA LASARTE**. Escribana.
11 Está mi sello. **CONCUERDA** con su escritura matriz que pasó ante mí, al folio 640
12 del Registro Notarial número 1788, a mi cargo. **PARA LA PODERDANTE** expido la
13 presente **PRIMERA COPIA** en cuatro (4) sellos de actuación notarial números N
14 009829309, N 009829310, N 009876431 y el presente número N 009876432, que
15 sello y firmo en la fecha y lugar de su otorgamiento, doy fe -

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L 008469295

EL COLEGIO DE ESCRIBANOS de la Ciudad de Buenos Aires, Capital Federal de la República Argentina, en virtud de las facultades que le confiere la ley orgánica vigente, **LEGALIZA** la firma y sello del escribano **MARIA SILVINA LASARTE** obrantes en el documento anexo, presentado en el día de la fecha bajo el N° **081001489401/4**. La presente legalización no juzga sobre el contenido y forma del documento.

Buenos Aires, **Miércoles 1 de Octubre de 2008**



ESC. SILVIA IMPELLIZZERI
COLEGIO DE ESCRIBANOS
CONSEJERA

COMO: NOTARIA SEXTA DEL CIRCULO DE BOGOTA
D.C. HAGO CONSTAR QUE LA FOTOCOPIA COINCIDE
CON EL ORIGINAL QUE HE TENIDO A LA VISTA
BOGOTA D.C. REPUBLICA DE COLOMBIA

17 ABR. 2009

AMPARO QUINTERO ARTURO
NOTARIA



REPUBLICA
ARGENTINA

(Convention de La Haye du 5 octobre 1961)

A 00205636

1. PAÍS: REPUBLICA ARGENTINA.

El presente documento público

2. Ha sido firmado por SILVIA IMPELLIZZERI

3. Quien actúa en calidad de CONSEJERA

4. Lleva el sello / timbre de COLEGIO DE ESCRIBANOS DE LA CIUDAD DE BUENOS
AIRES

5. En LA CIUDAD DE BUENOS AIRES. 6. El día 01/10/2008

7. Por EL COLEGIO DE ESCRIBANOS DE LA CIUDAD DE BUENOS AIRES

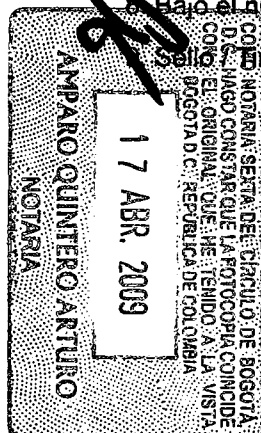
MINISTERIO DE RELACIONES EXTERIORES, COMERCIO INTERNACIONAL Y CULTO

(Convenio 02/09/2003)

Bajo el número: 081001076570

Sello y timbre

10. Firma



[Signature]
EL MAURO RATTI
COLEGIO DE ESCRIBANOS
CONSEJERO

[Handwritten marks]

DIVISIÓN DE NUEVAS CREACIONES

RADICACIÓN EXPEDIENTE No. 06-127979

EL EXTRACTO DE LA PRESENTE SOLICITUD DE PATENTE DE INVENCION

FUE PUBLICADO EN LA GACETA DE PROPIEDAD INDUSTRIAL No 583 DE

FECHA 18 DE DICIEMBRE DE 2007 EL TÉRMINO HÁBIL SEÑALADO POR LA

LEY EXPIRA EL 14 DE MARZO DE 2008

NOTA: Dentro del plazo de los seis (6) meses siguientes a partir de la fecha de publicación en la gaceta de Propiedad Industrial, deberá solicitar y cancelar el examen de patentabilidad so pena de que la solicitud caiga en abandono, de acuerdo con lo establecido en el Artículo 44 de la Decisión 486/2000.

SE PRESENTARON OPOSICIONES POR PARTE DE TERCEROS.

SI _____

NO X



US005415857A

United States Patent [19]
Robbins et al.[11] **Patent Number:** **5,415,857**
[45] **Date of Patent:** * **May 16, 1995**[54] **HAIR CONDITIONING SHAMPOOS
CONTAINING AMINOSILICONE
CONDITIONING AGENT**[75] **Inventors:** **Clarence R. Robbins**, Martinsville;
Amrit M. Patel, Dayton, both of N.J.[73] **Assignee:** **Colgate-Palmolive Company**, New
York, N.Y.[*] **Notice:** The portion of the term of this patent
subsequent to Apr. 21, 2009 has been
disclaimed.[21] **Appl. No.:** **963,214**[22] **Filed:** **Oct. 19, 1992****Related U.S. Application Data**[63] Continuation of Ser. No. 806,679, Dec. 13, 1991, aban-
doned, which is a continuation of Ser. No. 432,952,
Nov. 7, 1989, abandoned, which is a continuation-in-
part of Ser. No. 369,361, Jun. 21, 1989, abandoned.[51] **Int. Cl.⁶** **A61K 7/075; A61K 7/08**[52] **U.S. Cl.** **424/70.122; 424/70.24;**
424/70.28[58] **Field of Search** **424/71, 70.122, 70.24,**
424/70.28[56] **References Cited**
U.S. PATENT DOCUMENTS

5,106,613 4/1992 Hartnett et al. 424/71

Primary Examiner—Thurman K. Page*Assistant Examiner*—R. Harrison*Attorney, Agent, or Firm*—Richard J. Ancel; Robert C.
Sullivan[57] **ABSTRACT**

A hair conditioning shampoo, of improved fiber condi-
tioning properties, includes an aminosilicone of the
amodimethicone type, of a certain formula, and an
aqueous medium for the aminosilicone, which serves as
a carrier for it. Preferably, the carrier is an aqueous
anionic shampoo medium that also contains a cationic
surfactant hair conditioning agent, such as a quaternary
ammonium salt, and more preferably it also contains
hydrocarbon components, such as microcrystalline wax
and petrolatum and/or polyethylene and mineral oil,
which promote further improvement in conditioning
effects on human hair. The invention is also of hair
conditioning processes and combined shampooing and
hair conditioning operations, and of processes for manu-
facturing the invented conditioning shampoos.

19 Claims, No Drawings

not be so thin that they run uncontrollably. The desired viscosity range is 1,000 to 15,000 centipoises at room temperature (25° C.), preferably 3,000 to 6,000 centipoises, and more preferably the viscosity will be of about 3,500 or 4,000 centipoises at room temperature. The invented shampoos are non-settling and non-separating, and do not chemically deteriorate on storage, as has been established by accelerated aging tests at elevated temperatures. The shampoo viscosity may change slightly on storage but such an increase does not significantly affect the shampoo's properties. Also, the desired use viscosity can be planned and the shampoo can be designed to have the desired viscosity when it is normally expected to be used by the consumer.

The improved hair conditioning obtained by use of the invented compositions, compared to controls, from which any of the aminosilicone, cationic conditioner, or hydrocarbon conditioner has been omitted, is quite noticeable to the casual user of the shampoo or other invented conditioning composition, and is measurable in standard tests that are used to evaluate conditioning and its components, including ease of wet combing, ease of dry combing, manageability, static charge retention and flyaway. The casual shampooer will note that the hair is easier to comb after shampooing, in both wet and dry states, compared to control hair washed with a shampoo that is not under the invention (with one or more components missing from it). Scientific tests also prove that the force needed to move a comb through a standard hair tress after treatment (shampooing) of the hair with an invented shampoo, and rinsing, is measurably less than that when such control is employed in the same manner. Such results are confirmed by panel tests, in which several experienced evaluators, using both the experimental and control products in blind tests, evaluate them for such combing ease, manageability and static characteristics and effects.

Uses of the invented compositions, including shampoos, are not required to be different from normal uses of hair conditioning shampoos and other conditioning compositions. Conditioning agents may be applied at room temperature or at somewhat elevated temperatures in normal quantities and may be left on the hair for different lengths of time, depending on the extent of conditioning desired. Usually the conditioning agent and the hair will be at a temperature in the range of 15° to 50° C., preferably 20° to 40° C., and the conditioning composition will be in contact with the hair for from 30 seconds to ten minutes, preferably one to five minutes. The amount of composition applied will normally be in the range of 0.1 to 25 grams, often being 0.2 to 10 g. or 0.5 to 2 or 5 g., on the basis of the non-aqueous and non-solvent components of the compositions. On the basis of the shampoo which may be employed such application rates may be in the range of 0.5 to 50 grams, often 2 to 15 or 20 grams and frequently five or ten grams per use. The applied composition may be brushed and/or combed through the hair and may be subsequently washed out, may be allowed to remain on the hair or may be partially removed, as by towelling. When the shampoo is employed to wash and condition the hair it will be rinsed off with water after remaining on the hair as an aqueous foam for a sufficient length of time, usually 1 to 5 minutes, to satisfactorily condition the hair, and may then be wet combed, dried, as by blow drying, and dry combed or brushed to the desired style.

To manufacture the present compositions, including shampoos, no complex procedures have to be followed, but to obtain best stability and greatest conditioning activity, after storage of the invented compositions, it will be desirable to form a dispersion of the water soluble lipophile sulfate and/or sulfonate and adjuvants in water at an elevated temperature, such as 70° to 90° C., dissolve and/or disperse cationic conditioning agent, such as quaternary ammonium salt, with any lipophilic materials, such as hydrocarbons, including polyethylene, mineral oil, microcrystalline wax, petrolatum, paraffin and isoparaffin as a melt or liquid mix at elevated temperature, and admix the two pre-mixes, at such elevated temperature, after which the heated aminosilicone may be admixed with the resulting mix, with the various mixings taking place with the portions to be mixed at approximately the same temperatures. It is important that the aminosilicone be mixed in after the main pre-mixing; otherwise it may separate out or form an unstable composition. When adjuvants are present those which are water soluble and/or dispersible may be mixed in with the aqueous phase materials and those which are not water soluble or dispersible in the aqueous medium, may be blended in with the lipophilic materials, such as the hydrocarbons, or in some instances may be added to the mixture of the hydrophilic and lipophilic materials either before or after cooling to room temperature. Normally perfume will be added to the other mixed components after cooling to room temperature and the aminosilicone will be added at elevated temperature and before such cooling. The perfume is added to the cooled composition to avoid losses thereof due to volatilizations of components and to prevent and heat degradation. When the procedure described is not followed, as when the various components of the compositions are blended indiscriminately, unstable products may result, which can separate or settle out on storage, and such unstable compositions tend to have poorer conditioning properties than the stable conditioning compositions and shampoos that are made according to the invented procedure.

The following examples illustrate but do not limit the invention. Unless otherwise indicated all parts are by weight and all temperatures are in degrees Centigrade.

EXAMPLE 1

Component	Percent (by weight)				
	A	B	C	D	E
Part 1					
Deionized water	75.89	75.64	75.14	74.54	73.64
*Natosol TM 250	0.45	0.45	0.45	0.45	0.45
HHR					
**Natosol 330 CS	0.15	0.15	0.15	0.15	0.15
Ammonium lauryl sulfate	12.50	12.50	12.50	12.50	12.50
Sodium lauryl diethoxy sulfate	2.50	2.50	2.50	2.50	2.50
Part 2					
***C ₁₈₋₃₆ acid triglyceride	0.75	0.75	0.75	0.75	0.75
Ethylene glycol distearate	0.75	0.75	0.75	0.75	0.75
Stearyl stearate	0.35	0.35	0.35	0.35	0.35
Propylene glycol, U.S.P.	0.50	0.50	0.50	0.50	0.50
Laurel monoethanolamide	3.50	3.50	3.50	3.50	3.50
Tricetyl methyl ammonium chloride	0.50	0.50	0.50	0.50	0.50
Others					

-continued

Component	Percent (by weight)				
	A	B	C	D	E
****Preservative (Germaben II)	0.50	0.50	0.50	0.50	0.50
Dye (1% aqueous solution)	0.10	0.10	0.10	0.10	0.10
+ Sodium chloride	0.30	0.30	0.30	0.30	0.30
+ + Citric acid	0.01	0.01	0.01	0.01	0.01
Dow-Corning™ Silicone "B"	0.75	1.00	1.50	2.00	3.00
Perfume	0.50	0.50	0.50	0.50	0.50
	100.00	100.00	100.00	100.00	100.00

*hydroxyethyl cellulose (Hercules Corp.)

**Hydroxyethyl cellulose (Hercules Corp.)

***Synowax™ HGC-L (mfd. by Croda Corp.)

****Mfd. by Sutton Laboratories, Inc.

+ Sodium chloride (viscosity regulator, can be employed up to 0.5%, to increase shampoo viscosity).

+ + pH adjuster, can be employed, up to 0.1%, to lower pH, or sodium citrate can be employed, up to 0.1%, to raise pH.

The shampoo of the invention is made by charging the formula amount of water to a primary mixing vessel, starting mixing, and slowly sprinkling in the formula amounts of the Natrosols. Mixing is continued until the Natrosols are dissolved, while the medium is being heated to about 50° C. Heating is continued until the temperature is in the range of 80° to 85° C., after which the heat is turned down and the mixing is continued. The formula amounts of ammonium lauryl sulfate and sodium lauryl diethoxy sulfate are then added. During the time that the Part 1 components are being prepared the Part 2 components, including C₁₈₋₃₆ acid triglyceride, ethylene glycol distearate, stearyl stearate, propylene glycol, lauric monoethanolamide and tricetyl ammonium chloride, are either added separately or together to a separate container and are heated, with mixing, in such container until a uniform melt or solution is obtained at a temperature in the 80° to 85° C. range. With both Parts 1 and 2 at about the same elevated temperature, Part 2 is added to Part 1 in the main mixing vessel, with care being taken to avoid foam formation during admixing. After the admixing is completed the heat is turned off and mixing is continued for another ten minutes, after which the aminosilicone (Dow-Corning Silicone "B") is mixed in and mixing is continued for another ten minutes. When the mix is cooled to 39° C., the formula amounts of perfume, preservative and dye solution are added, with mixing, and sodium chloride and citric acid (or sodium citrate) are added in such amounts as are sufficient to bring the viscosity to about 4,000 centipoises at 25° C., and sodium chloride and citric acid (or sodium citrate) are then added if the viscosity is too low, outside the 4,000 to 6,000 centipoise range (measured on a Brookfield RVTD viscometer, with spindle No. 4, rotating at 20 r.p.m.), and if the pH is off specification (although in some circumstances the pH may be as low as 5 or as high as 8).

After the manufacturing of products 1/A, 1/B, 1/C, 1/D and 1/E, they are evaluated for hair conditioning properties, using standard dry combing and wet combing evaluation techniques, such as are described in our U.S. Pat. No. 5,051,250. The results of such tests are shown in Table 1.

TABLE 1

Test	1/A	1/B	1/C	1/D	1/E
***Evaluation for ease of wet combing	4-5	6-7	7-8	8-9	10-11

TABLE 1-continued

Test	1/A	1/B	1/C	1/D	1/E
***Evaluation for ease of dry combing	3-4	5-6	5-6	6-7	7-8

***Evaluations are on a scale of 1-10, with 1 being minimum conditioning (maximum resistance to combings) and 10 being maximum conditioning (minimum resistance to combings).

The rating of 11 for Composition 1/E indicates conditioning and ease of wet combing that are better than what had theretofore been considered to be obtainable.

A control shampoo is made of the same formula as those of this example, with the exception that the aminosilicone is omitted and is replaced by water. Both wet combing and dry combing ratings for such control shampoo are 1-2, which illustrate the great improvement in conditioning effect obtained and its dependence on the presence of the particular described aminosilicone. When other aminosilicones, such as Dow-Corning Silicones "C" and "D" of similar general formula but of higher charge density, and in some cases lower molecular weight, are substituted for the Silicone "B" significantly lower values in conditioning evaluations result. Also, when the formulas are modified by additions of microcrystalline wax (m.p. = 82° C.) and petrolatum, using 0.2 to 1% of microcrystalline wax, such as 0.5%, and 0.2, to 1.5% of petrolatum, such as 0.7%, with water contents being decreased to compensate, dry combing ratings are increased significantly for such modifications of Compositions 1/C, 1/D and 1/E. More importantly, significantly less flyaway hair is observed for all of these hydrocarbon containing compositions.

EXAMPLE 2

Component	Percent (by weight)		
	A	B	C
Irradiated deionized water	73.73	73.93	73.23
Natrosol 250 HHR	0.37	0.45	0.45
Natrosol 330 CS	0.13	0.45	0.15
Ammonium lauryl sulfate	12.50	12.50	12.50
Sodium lauryl diethoxy sulfate	2.50	2.50	2.50
Microcrystalline wax (m.p. = 82° C.)	1.00	0.20	0.20
C ₁₈₋₃₆ acid triglyceride	0.75	0.75	0.75
Snow white petrolatum	1.00	0.20	0.20
Tricetyl methyl ammonium chloride	0.50	0.50	0.50
Ethylene glycol distearate	0.75	0.75	0.75
Propylene glycol, U.S.P.	0.50	0.50	0.50
Lauric monoethanolamide	3.50	3.50	3.50
Stearyl stearate	0.35	0.35	0.35
Others			
Dow-Corning Silicone "B"	1.00	2.00	3.00
Sodium chloride	0.10	0.10	0.10
Preservative	0.50	0.50	0.50
Citric acid	0.01	0.01	0.01
Dye solution (0.5% aqueous solution)	0.31	0.31	0.31
Perfume	0.50	0.50	0.50
	100.00	100.00	100.00

Compositions 2/A, 2/B and 2/C are made according to the procedures described in Example 1 and are tested according to the procedures also described therein. The products are stable shampoos, which can last a year or more under normal conditions without deteriorating or losing conditioning powers, and without separating or settling out of component materials. The three shampoos are each adjusted to be of a viscosity in the range of 3,500 to 4,000 centipoises at 25° C., with such adjustment being made by addition of sodium chloride to

thicken the shampoo to the desired viscosity. Also, pH's thereof are in the range of 6 to 7, normally being about 6.5, with pH adjustment being effected by addition of citric acid and/or sodium citrate, as appropriate.

When the shampoos are employed to wash and simultaneously condition human hair, evaluations of such hair after washing and rinsing (and drying when appro-

here to the hair from aqueous solutions of the present shampoo components during shampooing but do not objectionably build up deposits on the hair that would tend to make it greasy or would otherwise adversely affect its physical properties.

EXAMPLE 3

Component	Percent (by weight)							
	A	B	C	D	E	F	G	H
Water (irradiated, deionized)	73.13	68.13	68.13	70.63	73.13	73.13	69.13	71.13
Natrosol 250 HHR	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Natrosol 330 CS	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Ammonium lauryl sulfate	15.00	—	—	2.50	—	—	12.50	12.50
*Ammonium laurethoxy sulfate	—	20.00	—	—	—	7.50	—	—
Sodium laurethoxy (2 EtO) sulfate	—	—	—	—	—	7.50	2.50	2.50
Sodium alpha C ₁₂₋₁₆ olefin sulfonate	—	—	—	—	15.00	—	—	—
Cocoamidopropyl betaine	—	—	—	—	—	—	3.50	—
Sodium decethoxy (3 EtO) sulfate	—	—	20.00	15.00	—	—	—	—
Microcrystalline wax (m.p. = 82° C.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
C ₁₈₋₃₆ acid triglyceride	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Petrolatum (Snow white)	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Tricetyl methyl ammonium chloride	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Ethylene glycol distearate	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Propylene glycol, U.S.P.	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Lauric monoethanolamide	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Stearyl stearate	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Aminosilicone (Dow-Corning "B")	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
**Climbazole	—	—	—	—	—	—	—	0.50
***Piroctone olamine	—	—	—	—	—	—	—	0.50
****Zinc pyrithione	—	—	—	—	—	—	—	1.00
Sodium chloride	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Preservative (Germaben II)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Sodium citrate	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Aqueous dye solution (1% concentration)	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Perfume	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*of 1-3 ethoxies, e.g., 2 EtO

**anti-dandruff agent, mfd. by Bayer

***anti-dandruff agent, mfd. by Hoechst, as Octopirox

****anti-dandruff agent, mfd. by Olin Industries

priate) show that the products made are excellent conditioning shampoos. The ratings (on the same bases as described in Example 1) for wet combing and dry 40 combing for both 2/A and 2/B are 9-10 and wet combing and drying combing ratings for 2/C are both 10-11. Thus, these examples illustrate that when more of the special aminosilicones of this invention is utilized conditioning will be improved. Additionally, it is shown that 45 when microcrystalline wax and petrolatum are present, a lesser proportion of the aminosilicone may be employed, and conditioning corresponding to that obtained from the composition containing more aminosilicone and less microcrystalline wax and petrolatum is 50 achievable. Thus, it would be expected that even better conditioning than 10-11 would be obtained by further increasing the microcrystalline wax and petrolatum contents of Formula 2/C, but care should be taken to avoid any excessive waxy feel of the conditioned hair. 55

Another advantage of the present invention is that the invented shampoos, although containing significant proportions of very effective anionic detergent(s), do not prevent the deposition of the contained conditioning agents onto the hair or other fibers to be conditioned. Also, although the conditioning agents are substantive to the hair and are not removed from it by the anionic detergent(s) during shampooing, they do not tend to build up excessive deposits on the hair due to repeated shampooings of the hair with the conditioning shampoos, and do not thereby tend to make the hair objectionably greasy. In summary, the conditioning agents, particularly the aminosilicones, sufficiently ad-

Compositions A-H of this example are made by the procedure previously described in Examples 1 and 2. The various compositions made, all of which are within the present invention, all exhibit improved hair conditioning properties, including easier combing, better manageability, less flyaway (which is attributed in part to the presence of the microcrystalline wax and petrolatum in all the formulas), and repeated shampooings of the compositions do not leave objectionable gummy deposits on the hair, such as can result from employing cationic gum conditioners instead of the described aminosilicones.

EXAMPLE 4

Component	Percent (by weight)		
	A	B	C
Irradiated deionized water	73.63	73.53	73.13
Natrosol 250 HHR	0.37	0.45	0.45
Natrosol 330 CS	0.13	0.15	0.15
Ammonium lauryl sulfate	12.50	12.50	12.50
Sodium lauryl diethoxy sulfate	2.50	2.50	2.50
Microcrystalline wax (m.p. = 82° C.)	1.00	—	0.20
C ₁₈₋₃₆ acid triglyceride	0.75	0.75	0.75
Petrolatum (white)	1.00	—	0.20
Tricetyl methyl ammonium chloride	0.50	0.50	0.50
Ethylene glycol distearate	0.75	0.75	0.75
Propylene glycol	0.50	0.50	0.50
Lauric monoethanolamide	3.50	3.50	3.50
Stearyl stearate	0.35	0.35	0.35
Dow-Corning Silicone "B"	1.00	3.00	3.00

-continued

Component	Percent (by weight)		
	A	B	C
Sodium chloride	0.20	0.20	0.20
Preservative (Germaben II)	0.50	0.50	0.50
Sodium citrate or citric acid	0.01	0.01	0.01
Aqueous dye solution (0.6% conc.)	0.31	0.31	0.31
Perfume	0.50	0.50	0.50
	100.00	100.00	100.00

The compositions of this example are made according to the method described in the previous examples and are evaluated in similar manner. The three shampoos made are effective conditioning shampoos of desired viscosity (4,000 centipoises at 25° C.) and pH (6.5). They are stable on storage and effectively condition hair that is shampooed with them. Shampoos 4/B and 4/C are more effective in improving ease of wet combing than Shampoo 4/A but Shampoo 4/A, despite the fact that it contains less aminosilicone than the other shampoos, is characterized by improved (excellent) dry combing properties. To make shampoo 4/A even more acceptable to consumers the amount of petrolatum in the formula is decreased to 0.75%, to avoid any trace of greasiness in the shampooed hair, and improved and satisfactory conditioning (including superior dry combing ease) are still obtained.

EXAMPLE 5

Component	Percent (by weight)
Deionized water	73.94
Natrosol 250 HHR	0.45
Natrosol 330 AP	0.15
Ammonium lauryl sulfate	12.50
Sodium lauryl diethoxy sulfate	2.50
C ₁₈₋₃₆ acid triglyceride	0.75
Tricetyl methyl ammonium chloride	0.50
Ethylene glycol distearate	0.75
Propylene glycol	0.50
Lauric monoethanolamide	3.50
Stearyl stearate	0.35
Aqueous color solution (0.6% conc.)	0.31
Germaben II	0.30
Aminosilicone	3.00
Perfume	0.50
	100.00

Hydroxyethyl cellulose (Hercules Corp.)

Shampoos of the above formula are made by the procedure previously described, using different aminosilicones, which shampoos are identified as A, B, C, D and E, and a basic control formula, F, is also made, containing no silicone (but with 3% more deionized water).

Table 2 below identifies the aminosilicones in the various formulas, when present, and Table 3 gives wet combing and dry combing evaluation data for such formulations.

TABLE 2

Formula Identification	Aminosilicone Identification	Amine Equivalent
5/A	A	4,200
5/B	B	30,000
5/C	C	2,000
5/D	D	2,000
5/E	E	1,800
5/F	F	

TABLE 3

Characteristic	Evaluation					
	5/A	5/B	5/C	5/D	5/E	5/F
Wet combing ease	4.5	8.5	2	1	1	2.5
Dry combing ease	4.0	8.0	2	2	2	2.0

From the above data it is seen that some aminosilicones have an adverse affect on hair conditioning or affect it hardly at all whereas those of the present invention, which are components of the A and B compositions, measurably improve conditioning (as measured by eases of wet and dry combing). Such compositions also improve manageability of the hair.

EXAMPLE 6

When, in variations of the formulations of the preceding examples, the various adjuvants are omitted from the formulas so that the shampoos made contain only the required constituents thereof, anionic surfactant(s), cationic surfactant conditioner(s) aminosilicone(s) and water, the preparations made are less viscous than is desirable for commercial shampoos but they are usefully employable for shampooing and conditioning hair. When hydrocarbon components, such as microcrystalline wax and petrolatum, or polyethylene and mineral oil, with paraffin and/or isoparaffin also being addable, are included in the formulations with the basic required components, conditioning is further improved, as was previously indicated.

In the various formulations of the examples other materials mentioned in the specification may be substituted in part for those recited in the examples and useful improvements in hair conditioning (and fiber conditioning) will be obtainable. Thus, triethanolamine lauryl sulfate, sodium myristyl sulfate, potassium cetyl sulfate, triethanolamine myristyl diethoxy sulfate, sodium C₁₄ paraffin sulfonate, ammonium C₁₀ olefin sulfonate or triethanolamine cocomonoglyceride sulfate, or mixtures thereof, may be employed as the anionic detergent component, and distearyl dimethyl ammonium chloride, trilauryl methyl ammonium chloride, stearyl cetyl dimethyl ammonium chloride or dilauryl diethyl ammonium chloride may be substituted for the cationic surfactant conditioning agent, and improved conditioning will also result. Similarly, various aminosilicones of the formula given and of the mentioned molecular weights and amine equivalents, which describe such polymers, may be employed in place of the specific preferred materials recited herein. Normally, however, it will be preferred to employ those wherein R¹, R², R³, R⁵, R⁶ and R⁷ are alkyls in the lower portion of the 1 to 6 carbon atoms range, such as of two carbon atoms or less and most preferably 1 carbon atom, and R⁸ is an alkyl group having 3 to 6 carbon atoms with isobutyl being the preferred group. An important consideration in selecting the aminosilicone formulation is the feasibility and economy of its manufacture so the R and other alkyl substituents on the silicon atoms will often be identical, except for R⁴. As to the adjuvants, different thickeners, viscosity controllers, foaming agents, foam modifiers, stabilizers, dispersing agents, preservatives, pH modifiers, etc. may be substituted for those of the examples, as described in the specification, without interfering with the improved conditioning obtainable. Furthermore, the proportions of components of the compositions of the examples may also be changed, by being increased or decreased by 10%, 20%, 30%, so

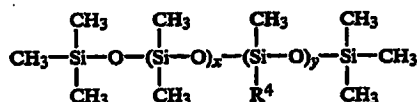
long as such proportions are retained within the ranges recited in the specification, and in which the mentioned improved conditioning effects are obtainable. Finally, instead of the compositions of the examples all being shampoos they may be employed for cleaning and conditioning other fibrous materials, such as cotton, wool and synthetic fibers, and the formulas may be modified by omission of anionic surfactants to produce non-detergent fiber and hair conditioning preparations that are useful for conditioning previously washed fibers (and which may be employed as hair rinses, mousses or gels to condition washed hair).

The various patent applications, patents and publications previously referred to in this specification are hereby incorporated herein by reference.

The invention has been described with reference to illustrations and examples thereof but is not intended to be limited to these because it is evident that one of skill in the art, with the present specification before him or her, will be able to utilize substitutes and equivalents without departing from the invention.

What is claimed is:

1. A hair conditioning shampoo which is of improved hair conditioning characteristics and does not build up on the hair upon repeated shampooings with it, which comprises 5 to 30% of water soluble synthetic organic anionic detergent, 0.3 to 5% of an aminosilicone of the formula



wherein R^4 is $-\text{R}^8-\text{NH}-\text{CH}_2\text{CH}_2-\text{NH}_2$, R^8 is alkylene of 3 to 6 carbon atoms, x is an average number in the range of 500 to 10,000, y is 1, which is of an amine equivalent in the range of 10,000 to 40,000, which aminosilicone is in emulsion or dispersion form in the shampoo, 0.1 to 5% of cationic surfactant hair conditioning agent and 50 to 95% of water.

2. A hair conditioning shampoo according to claim 1 which comprises 5 to 30% of water soluble synthetic organic anionic detergent selected from the group consisting of sulfate detergent, sulfonate detergent and mixtures thereof, 0.3 to 5% of the aminosilicone, 0.1 to 5% of the cationic surfactant which comprises a quaternary ammonium salt cationic surfactant hair conditioning agent of the formula $\text{R}^9 \text{R}^{10} \text{R}^{11} \text{R}^{12} \text{N}^+ \text{X}^-$, wherein R^9 is lower alkyl of 1 to 4 carbon atoms, R^{10} and R^{11} are higher alkyls of 10 to 40 carbon atoms, R^{12} is such a lower alkyl or such a higher alkyl, and X^- is a salt forming anion, 50 to 95% of water, and which further comprises 0.1 to 30% of adjuvants for the shampoo.

3. A hair conditioning shampoo according to claim 2 which comprises 8 to 25% of the water soluble synthetic organic anionic detergent(s), which is of 8 to 20 carbon atoms in the lipophile group(s) thereof, 0.5 to 5% of the aminosilicone, 0.1 to 3% of said quaternary ammonium salt wherein X in the formula given is a halogen which is chlorine, bromine or iodine or any mixture thereof, and the sum of the numbers of carbon atoms is at least 30, 0.5 to 20% of said adjuvants and 60 to 90% of water.

4. A hair conditioning shampoo according to claim 3 which comprises 10 to 20% of the water soluble synthetic organic anionic detergent(s), 0.8 to 4% of the

aminosilicone, 0.2 to 2% of the quaternary ammonium halide wherein the halogen is chlorine or bromine or a mixture thereof, 3 to 15% of adjuvants and 65 to 80% of water, which shampoo is of a viscosity in the range of 1,500 to 10,000 centipoises at 25° C.

5. A hair conditioning shampoo according to claim 4 which comprises 12 to 18% of the water soluble synthetic organic anionic detergent, which detergent is selected from the group consisting of alcohol sulfates of 10 to 18 carbon atoms in the alkyl thereof, alcohol ether sulfates of 10 to 18 carbon atoms in the alkyl thereof and of 1 to 3 ethoxy groups in the ether portion thereof, or any mixture thereof, wherein the cations of such detergent salts are alkali metal, ammonium or lower alkanolamine of 1 to 3 carbon atoms in the alkanol, or any mixture thereof, 1 to 3% of the aminosilicone, 0.3 to 1% of the quaternary ammonium halide, in which the halogen is chlorine and R^{12} is higher alkyl, 3 to 15% of adjuvants, and 65 to 80% of water, which shampoo is of a viscosity in the range of 3,000 to 6,000 centipoises at 25° C. and is of a pH in the range of 5 to 8.

6. A hair conditioning shampoo according to claim 5 which comprises about 13% of ammonium lauryl sulfate, about 3% of sodium lauryl diethoxy sulfate, about 3% of the described aminosilicone, in which R^4 of the formula is $\text{R}^8-\text{NH}-\text{CH}_2-\text{CH}_2-\text{NH}_2$ and R^8 is isobutyl, about 0.5% of tricetyl methyl ammonium chloride, about 8% of adjuvants and about 73% of water, in which the viscosity is in the range of about 3,500 to 4,000 centipoises at 25° C. and the pH is in the range of about 6 to 7.

7. A process for shampooing and conditioning hair which comprises applying to such hair a conditioning proportion of a composition according to claim 1 in such manner as to distribute such composition over such hair.

8. A process according to claim 7 herein the shampooing and conditioning composition is a shampoo which comprises 5 to 30% of water soluble synthetic organic anionic detergent selected from the group consisting of sulfate detergent, sulfonate detergent and mixtures thereof, 0.3 to 5% of the aminosilicone, 0.1 to 5% of quaternary ammonium salt cationic surfactant hair conditioning agent of the formula $\text{R}^9 \text{R}^{10} \text{R}^{11} \text{R}^{12} \text{N}^+ \text{X}^-$, wherein R^9 is lower alkyl of 1 to 4 carbon atoms, R^{10} and R^{11} are higher alkyls of 10 to 40 carbon atoms, R^{12} is such a lower alkyl or such a higher alkyl, and X^- is a salt forming anion, 0.1 to 30% of adjuvants for the shampoo, and 50 to 95% of water, the application of the shampooing and conditioning composition to the hair is by shampooing of the hair, and such application is followed by rinsing and drying of the shampooed and rinsed hair, and by wet or dry combing thereof.

9. A process according to claim 8 wherein the shampoo comprises about 13% of ammonium lauryl sulfate, about 3% of sodium lauryl diethoxy sulfate, about 3% of the aminosilicone, in which R^4 of the formula is $-\text{R}^8-\text{NH}-\text{CH}_2-\text{CH}_2-\text{NH}_2$ and R^8 is isobutyl, about 0.5% of said quaternary ammonium salt which comprises tricetyl methyl ammonium chloride, about 8% of adjuvants and about 73% of water, in which shampoo the viscosity is in the range of about 3,500 to 4,000 centipoises at 25° C. and the pH is in the range of about 6 to 7, the shampoo is applied to hair on the human head at the rate of 2 to 15 grams per shampooing, is maintained in contact with the hair, as an aqueous foam, for

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from 1 to 5 minutes, and is rinsed off, after which the hair is wet combed, blow dried and dry combed.

10. A process according to claim 8 wherein the amine equivalent of the aminosilicone is about 30,000.

11. A shampoo according to claim 1 wherein R⁸ is an isobutyl group, the average x is in the range of 750 to 800, the amine equivalent of the aminosilicone is about 30,000 and the aminosilicone is in dispersed or emulsified state in the shampoo and the shampoo is stable on storage, without settling out of components thereof and without phase separation occurring.

12. A hair conditioning shampoo according to claim 1 which said adjuvant further comprises 0.5 to 20% of a hydrocarbon or a mixture of hydrocarbons selected from the group consisting of normally solid polyethylene, mineral oil, paraffin, isoparaffin, petrolatum and microcrystalline wax.

13. A hair conditioning shampoo according to claim 2 which said adjuvant further comprises 0.1 to 3% of microcrystalline wax and 0.1 to 2% of paraffin.

14. A hair conditioning shampoo according to claim 3 which further comprises 0.5 to 2% of microcrystalline wax and 0.5 to 1.5% of paraffin.

15. A hair conditioning shampoo according to claim 1 which further comprises 0.2 to 5% of a normally solid polyethylene and 0.1 to 10% of a normally liquid mineral oil, which mineral oil makes the polyethylene water dispersible, emulsifiable or soluble, and increases its hair conditioning effects.

16. A hair conditioning shampoo according to claim 2 which said adjuvant further comprises 0.2 to 2% of a normally solid polyethylene and 0.2 to 8% of a nor-

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mally liquid mineral oil, which mineral oil makes the polyethylene water dispersible, emulsifiable or soluble.

17. A process according to claim 9 wherein said adjuvant in the hair conditioning shampoo further comprises 0.5 to 2% of microcrystalline wax and 0.5 to 1.5% of paraffin.

18. A process for the manufacture of a stable hair conditioning shampoo of the composition of claim 1 which comprises admixing the components, except for the aminosilicone, and heating to an elevated temperature at which the aminosilicone, when heated, will form an emulsion or stable dispersion when admixed with such composition and subsequently cooled, heating the aminosilicone and mixing the aminosilicone and the composition, less aminosilicone, for from one minute to one hour to disperse the aminosilicone in the composition, and cooling the composition to stable emulsion or dispersion form.

19. A process for the manufacturer of a stable hair conditioning shampoo of the composition of claim 6 wherein the polyethylene and mineral oil are heated together to a temperature in the range of 70° to 90° C. to melt, dissolve or disperse the polyethylene in the mineral oil, the balance of the composition components except for the aminosilicone, is processed to dispersion or emulsion form by mixing together the components thereof and heating to a temperature in the range of 70° to 90° C., the two such pre-mixes are admixed at such elevated temperature and the aminosilicone, at a temperature in the range of 70° to 90° C., is admixed with the combination of pre-mixes, and the mix is cooled to room temperature, to produce a stable hair conditioning shampoo, which does not deteriorate, separate or settle out on storage before use.

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- (81) Designated States (national): AE, AG, AL, AM, AT, AU,
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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: **HAIR DETERGENT COMPOSITIONS**

(57) Abstract: Abstract Provided is a hair detergent composition comprising the following components (a), (b) and (c): (a) an anionic surfactant, (b) a carboxylic acid selected from hydroxymonocarboxylic acids, dicarboxylic acids and hydroxydicarboxylic acids, or a salt thereof, and (c) a silicone derivative having a group containing both a hydroxy group and a nitrogen atom as a side chain thereof bonded to a silicon atom. The hair detergent composition provides rich foaming during shampooing and at the same time and is capable of giving excellent conditioning effects and luster to the hair.¹¹

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		(wt.%)
	Sodium polyoxyethylene (2) lauryl ether sulfate	11.0
	Lactic acid	0.75
	Malic aCid	0.25
5	Silicone derivative *1	1.0
	Polypropylene glycol (M _w =400)	0.5
	Cocamidopropyl betaine	3.0
	Cocamide MEA	0.5
	Ethylene glycol distearyl ester	1.0
10	Cationized guar gum	
	("Jaguar C-13S", product of RHODIA)	0.4
	Sodium chloride	0.3
	Perfume	trace
	Aqueous solution of sodium hydroxide	q.s.
15	Purified water	Balance

*1: sold from Dow Corning under the name of "8500
CONDITIONING AGENT". It contains, as an effective
ingredient, 60 wt.% of a silicone derivative (CAS No.
237753-63-8) having a group containing both a hydroxy group
and a nitrogen atom as a side chain.

It has been found that the shampoo (having pH 3.9
when diluted to 20 times the weight) thus obtained was
excellent in smoothness during the period of time from
foaming to rinsing, smoothness after drying and luster.

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308**Claims**

1. A hair detergent composition comprising the following components (a), (b) and (c):

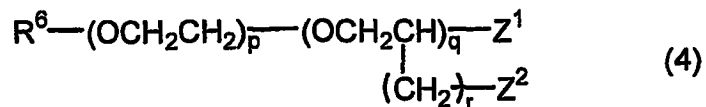
(a) an anionic surfactant,

5 (b) a carboxylic acid selected from the group consisting of hydroxymonocarboxylic acids, dicarboxylic acids and hydroxydicarboxylic acids, a salt thereof, and mixtures thereof and

10 (c) a silicone derivative having a group containing both a hydroxy group and a nitrogen atom as a side chain thereof bonded to a silicon atom.

2. The hair detergent composition of Claim 1, further comprising, as Component (d), an organic solvent selected from the group consisting of (d1), (d2), (d3), (d4), (d5),
15 and mixtures thereof:

(d1) compounds represented by formula (4):



wherein, R⁶ represents a hydrogen atom, a lower alkyl group or a group R⁷-Ph-R⁸- (R⁷: a hydrogen atom, a methyl group or a methoxy group, R⁸: a bond, or a saturated or unsaturated
20 divalent C₁₋₃ hydrocarbon group, Ph: a paraphenylene group), Z¹ and Z² each represents a hydrogen atom or a hydroxy group, and p, q and r each stands for an integer of from 0

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WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



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(21) International Application Number: PCT/EP99/03230 (22) International Filing Date: 4 May 1999 (04.05.99) (30) Priority Data: 9810856.6 20 May 1998 (20.05.98) GB (71) Applicant (for AE AU BB CA CY GB GD GH GM IE IL KE LC LK LS MN MW NZ SD SG SL SZ TT UG ZA ZW only): UNILEVER PLC [GB/GB]; Unilever House, Blackfriars, London EC4P 4BQ (GB). (71) Applicant (for all designated States except AE AU BB CA CY GB GD GH GM IE IL IN KE LC LK LS MN MW NZ SD SG SL SZ TT UG US ZA ZW): UNILEVER N.V. [NL/NL]; Weena 455, NL-3013 AL Rotterdam (NL). (71) Applicant (for IN only): HINDUSTAN LEVER LIMITED [IN/IN]; Hindustan Lever House, 165/166 Backbay Reclamation, Mumbai 400 020, Maharashtra (IN). (72) Inventors; and (75) Inventors/Applicants (for US only): BERTOLOSSO, Gerardo [AR/AR]; Elida Pond's, Descartes 4020, 1667 Tortuguitas, Provincia de Buenos Aires (AR). MAVROPOULOU, Maria			[AR/AR]; Elida Pond's, Descartes 4020, 1667 Tortuguitas, Provincia de Buenos Aires (AR). (74) Agent: GRIFFITHS, Helen, Sarah; Unilever plc, Patent Dept., Colworth House, Sharnbrook, Bedford MK44 1LQ (GB). (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: HAIR TREATMENT COMPOSITION CONTAINING PARTICLES OF MACROPOROUS, HIGHLY CROSS-LINKED POLYMER (57) Abstract The invention provides a hair treatment composition comprising particles of a macroporous, highly cross-linked copolymer in which the macroporous, highly cross-linked copolymer is present in the hair treatment composition of the invention as a combination of non-pre-loaded copolymer powder and copolymer powder which is pre-loaded with a benefit agent selected from emollients and moisturisers. The composition is typically formulated as a cleansing shampoo or rinse-off post-wash hair conditioner and is useful for the regulation of hair surface sensory feel, in particular the treatment of greasy roots and dry ends ("mixed" hair).			

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ingredients are included individually at a level of up to 2%, preferably up to 1%, by weight of the total composition.

Among suitable hair care adjuvants, are:

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(i) natural hair root nutrients, such as amino acids and sugars. Examples of suitable amino acids include arginine, cysteine, glutamine, glutamic acid, isoleucine, leucine, methionine, serine and valine, and/or precursors and derivatives thereof. The amino acids may be added singly, in mixtures, or in the form of peptides, e.g. di- and tripeptides. The amino acids may also be added in the form of a protein hydrolysate, such as a keratin or collagen hydrolysate. Suitable sugars are glucose, dextrose and fructose. These may be added singly or in the form of, e.g. fruit extracts. A particularly preferred combination of natural hair root nutrients for inclusion in compositions of the invention is isoleucine and glucose. A particularly preferred amino acid nutrient is arginine.

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(ii) hair fibre benefit agents. Examples are:

- ceramides, for moisturising the fibre and maintaining cuticle integrity. Ceramides are available by extraction from natural sources, or as synthetic ceramides and pseudoceramides. A preferred ceramide is Ceramide II, ex Quest. Mixtures of ceramides may also be suitable, such as Ceramides LS, ex Laboratoires Serobiologiques.

30 - fatty acids, for cuticle repair and damage prevention. Examples are branched chain fatty acids such as 18-methyleicosanoic acid and other homologues of this series, straight chain fatty acids such as stearic, myristic and

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Example 2

A hair conditioning composition was prepared by mixing the following components in the amounts stated.

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<u>Component</u>	<u>% by weight</u>
Cetyl trimethylammonium chloride (25% a.i.)	4.0
10 Cetearyl alcohol	3.2
Stearyl stearate	0.7
15 Paraffin wax	1.0
Silicone emulsion ⁽²⁾	6.33
Hydroxyethylcellulose	0.35
20 MICROSPONGE® Skin Oil Adsorber 5640 Powder	0.01
MICROSPONGE® Glycerine 5647 Powder	0.01
25 Cetyl hydroxyethylcellulose	0.03
Preservative, colour, fragrance	q.s.
30 Water, minors	to 100%

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(2) Added as 3.0% DC2-1784 (emulsion of dimethiconol in anionic surfactant, 50% active, ex Dow Corning) and 0.57% DC 8177 (microemulsion of amino functional silicone in nonionic surfactant, 14% active, ex Dow Corning).



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(12) **United States Patent**
Harrison et al.

(10) Patent No.: **US 6,605,577 B1**
(45) Date of Patent: ***Aug. 12, 2003**

(54) **CLEAR CONDITIONING DETERGENT
COMPOSITIONS CONTAINING
POLYSILOXANES WITH AT LEAST ONE
CYCLIC SIDE CHAIN**

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This patent is subject to a terminal dis-
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(52) U.S. Cl. **510/122; 510/119; 510/276;
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(58) Field of Search **510/276, 287,
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(74) *Attorney, Agent, or Firm*—Stout, Uxa, Buyan &
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(57) **ABSTRACT**

This invention relates to a clear shampoo comprising a
polysiloxane component and methods for making the same.
In one embodiment, the polysiloxane component comprises
a side chain component having a hindered amine group.

19 Claims, No Drawings

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-continued

Phase B	
Sodium C9-15 Pareth-3 Sulfate	12.58%
Sodium Oleth Sulfate	18.72%
Coco-Betaine, Coco/Oleamidopropyl Betaine	4.84%
Linoleamide MEA	4.15%
Sodium Chloride	1.70%
Fragrance	q.s.
Preservatives	q.s.
Color	q.s.
Water	to 100%

EXAMPLE 3

Phase A	
Glycereth-4	0.56%
Isosteareth-6	0.85%
Propoxytetramethyl Piperidinyl Dimethicone	2.88%
Water	8.05%
Phase B	
Sodium Cocoamphohydroxypropylsulfonate	17.58%
Ammonium Dodecylbenzenesulfonate	18.72%
Myristyl Betaine Oleamidopropyl Betaine	6.8%
Myristamide MEA	4.53%
Disodium EDTA	0.05%
Fragrance	q.s.
Preservatives	q.s.
Sodium Chloride	1.70%
Color	q.s.
Water	to 100%

EXAMPLE 4

Phase A	
Oleth-3	0.48%
PPG-2-Ceteth-5	0.70%
Propoxytetramethyl Piperidinyl Dimethicone	3.50%
Water	7.01%
Phase B	
Sodium C12-15 Alkyl Sulfate	15.58%
Potassium Laureth-5 Carboxylate	18.72%
Behenamide MEA	4.26%
Soyamidopropyl Betaine	5.9%
Disodium EDTA	0.05%
Fragrance	q.s.
Preservatives	q.s.
Sodium Chloride	1.70%
Color	q.s.
Water	to 100%

EXAMPLE 5

Phase A	
Ceteth-3	0.24%
Ceteareth-6	0.30%
Propoxytetramethyl Piperidinyl Dimethicone	1.50%
Water	3.0%

-continued

Phase B	
Sodium C12-15 Alkyl Sulfate	13.58%
Sodium C12-15 Pareth Sulfate	18.72%
Tallowamidopropylamine Oxide	4.3%
Cocamide MEA	3.56%
Disodium EDTA	0.05%
Fragrance	q.s.
Preservatives	q.s.
Sodium Chloride	1.70%
Color	q.s.
Water	to 100%

EXAMPLE 6

Phase A	
Deceth-3	0.28%
Trideceth-6	0.42%
Propoxytetramethyl Piperidinyl Dimethicone	1.40%
Water	4.20%
Phase B	
Sodium C9-15 Pareth-3 Sulfate	12.58%
Sodium C12-13 Alkyl Sulfate	18.72%
Cocamide MEA	3.37%
Apricotamidopropyl Betaine	4.4%
Disodium EDTA	0.05%
Fragrance	q.s.
Preservatives	q.s.
Sodium Chloride	1.70%
Color	q.s.
Water	to 100%

EXAMPLE 7

Phase A	
Undeceth-3	0.06%
C14-15 Pareth-7	0.075%
Propoxytetramethyl Piperidinyl Dimethicone	0.40%
Water	0.75%
Phase B	
Sodium Oleth Sulfate	12.58%
Sodium Myristyl Sulfate	18.72%
Ricinoleamidopropyl Betaine	3.95%
Cocamide MEA	3.84%
Disodium EDTA	0.05%
Fragrance	q.s.
Sodium Chloride	1.70%
Preservatives	q.s.
Color	q.s.
Water	to 100%

EXAMPLE 8

Sodium Trideceth Sulfate	16.53%
TEA-C12-13 Pareth-3 Sulfate	18.72%
Lauramidopropylamine Oxide	3.58%
Cocamide MEA	3.84%
Disodium EDTA	0.05%
Glycereth-4	0.36%
Oleth-9	0.45%
Propoxytetramethyl Piperidinyl Dimethicone	2.25%

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-continued

Fragrance	q.s.
Preservatives	q.s.
Sodium Chloride	1.70%
Color	q.s.
Water	to 100%

EXAMPLE 9

Ammonium Dodecylbenzenesulfonate	12.58%
Potassium Dodecylbenzenesulfonate	18.72%
Isosteareth-4	0.74%
Trideceth 7	1.26%
Propoxytetramethyl Piperidiny Dimethicone	4.20%
Cocamidopropylamine Oxide	4.56%
Cocamide MEA	3.84%
Disodium EDTA	0.05%
Fragrance	q.s.
Preservatives	q.s.
Sodium Chloride	1.70%
Color	q.s.
Water	to 100%

EXAMPLE 10

Sodium Cocoamphohydroxypropylsulfonate	19.21%
Ammonium Lauryl Sulfosuccinate,	18.72%
Cocamide MEA	3.84%
Myristamide MEA	2.89%
Trideceth 4	1.40%
C14-15 Pareth-6	2.10%
Propoxytetramethyl Piperidiny Dimethicone	7.10%
Disodium EDTA	0.05%
Fragrance	q.s.
Preservatives	q.s.
Sodium Chloride	1.70%
Color	q.s.
Water	to 100%

EXAMPLE 11

Potassium Laureth-5 Carboxylate,	22.58%
Disodium Lauramido MEA-Sulfosuccinate	18.02%
Myristamide MEA	3.47%
Cocamide MEA	3.84%
Trideceth 3	1.20%
Trideceth 6	1.50%
Propoxytetramethyl Piperidiny Dimethicone	8.00%
Disodium EDTA	0.05%
Fragrance	q.s.
Preservatives	q.s.
Sodium Chloride	1.70%
Color	q.s.
Water	to 100%

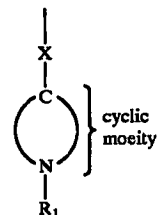
While this invention has been described with respect to various specific examples and embodiments, it is to be understood that the invention is not limited thereto and that it can be variously practiced with the scope of the following claims.

What is claimed is:

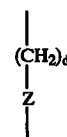
1. A hair shampoo composition comprising an effective amount of a deterative component, an effective amount of an emulsifier component and a polysiloxane component in an

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amount effective as a hair conditioner, the hair shampoo composition being clear, the polysiloxane component comprises at least one side chain component A having the general formula:



R_1 is an H, OH or a C1-C5 hydrocarbon; X is a C1-C10 hydrocarbon, a heteroatom or



Z is a heteroatom and d is 0 to about 6, the polysiloxane component has a viscosity of about 1 centistoke to about 1,000,000 centistoke.

2. The composition of claim 1 comprising about 5% to about 60% of the deterative component, about 0.01% to about 10% of the emulsifier component, and about 0.01% to about 10% of the polysiloxane component.

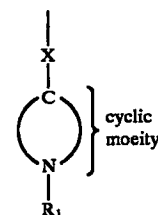
3. The composition of claim 1 wherein the deterative component comprises a surfactant selected from the group consisting of an anionic surfactant, an amphoteric surfactant and a mixture thereof.

4. The composition of claim 1 wherein the emulsifier component comprises a non-ionic emulsifier.

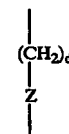
5. A clear hair shampoo composition comprising:

(a) about 0.01% to about 10% of an emulsifier component; and

(b) about 0.01% to about 10% of a polysiloxane component, the polysiloxane component comprises a side chain component A having the general formula;



R_1 is an H or a C1-C5 hydrocarbon; X is a C1-C10 hydrocarbon, a heteroatom or



Z is a heteroatom and d is 0 to about 6, the polysiloxane component has a viscosity of about 1 centistoke to about 1,000,000 centistoke and is effective as a hair conditioner in

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a hair shampoo, wherein the composition is formulated as a clear hair shampoo composition.

6. The composition of claim 5 wherein the polysiloxane component has a viscosity of about 1,000 centistoke to about 500,000 centistoke.

7. The composition of claim 5 wherein the polysiloxane component has a viscosity of about 1,000 centistoke to about 10,000 centistoke.

8. The composition of claim 5 wherein the polysiloxane component has a viscosity of about 1,000 centistoke to about 5,000 centistoke.

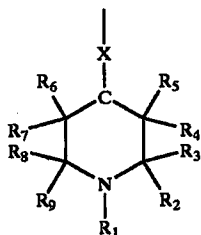
9. The composition of claim 5 wherein the polysiloxane component has a viscosity of about 2,000 centistoke to about 4,000 centistoke.

10. The composition of claim 5 wherein the emulsifier component comprises:

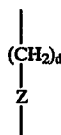
about 0.01% to about 5% of an anionic or an amphoteric surfactant; and

about 0.01% to about 5% of a non-ionic emulsifier.

11. The composition of claim 5 in the side chain component A has the general formula:

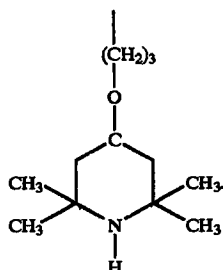


wherein R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈ and R₉ are independently an H, a C₁-C₁₀ hydrocarbon, an ester, carboxyl or a halogen; X is a C₁-C₁₀ hydrocarbon, a heteroatom or



Z is a heteroatom and d is 0 to about 6.

12. The composition of claim 5 wherein the side chain component A has the general formula:



13. The composition of claim 5 further comprising a deterative component.

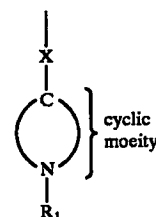
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14. The composition of claim 5 further comprising about 5% to about 60% of a deterative component.

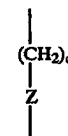
15. The composition of claim 5 further comprising a shampoo additive component.

16. A method of making a clear hair shampoo composition comprising:

combining (1) a microemulsion comprising an effective amount of an emulsifier component, a polysiloxane component in an amount effective as a hair conditioner in a hair shampoo and water and (2) an effective amount of a deterative component at conditions effective to form a clear hair shampoo composition, wherein the polysiloxane component comprises at least one side chain component A having the general formula:

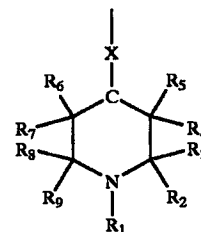


R₁ is an H, OH or a C₁-C₅ hydrocarbon; X is a C₁-C₁₀ hydrocarbon, a heteroatom or

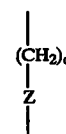


Z is a heteroatom and d is 0 to about 6, the polysiloxane component has a viscosity of about 1 centistoke to about 1,000,000 centistoke.

17. The method of claim 16 wherein the side chain component A has the general formula:



wherein R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈ and R₉ are independently an H, a C₁-C₁₀ hydrocarbon, an ester, carboxyl or a halogen; X is a C₁-C₁₀ hydrocarbon, a heteroatom or



Z is a heteroatom and d is 0 to about 6.

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIRECCIÓN DE NUEVAS CREACIONES

2020
Bogotá, D.C.,

Abogado
MAURICIO PATIÑO BONNET
(Apoderado)

ASUNTO	Radicación	06127979
	Trámite	002
	Evento	001
	Actuación	430 055661
	Oficio	
	Folios	024

Patente de Invención ☒ Patente de Modelo de Utilidad ☐

Vía Nacional ☐

Vía PCT (fase nacional) ☒ Cap. I ☒ Cap. II ☐

No. Sol. Internacional PCT/EP2005/001752

Fecha de Presentación Internacional 19-02-2005

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

1. Documentos estudiados:

1.1. Descripción: (Folios: 171 a 247) como se radicó inicialmente.

1.2. Reivindicaciones: 1 a 17 (Folios: 248 a 251) como se radicó inicialmente.

1.3. Prioridad: 25/06/2004 DE 102004030885.3..

2. Análisis de la Prioridad:

La prioridad de la presente solicitud corresponde al objeto reivindicado.

3. Objeto de la invención:

La presente solicitud se titula: "Agente de limpieza para el cabello con siliconas aminofuncionales".

El objeto de la presente solicitud se refiere a agentes para la limpieza del cabello así como al uso de estos agentes para la limpieza y/o el cuidado de piel y cabello.

De acuerdo con la descripción, lo que requiere el cabello, por ejemplo, con la tintura o las permanentes, como también con la limpieza del cabello con champúes y por otro impacto ambientales, aumenta la importancia de productos para el cuidado con una acción suficientemente fuerte y lo más duradera posible. Los productos para el cuidado de este tipo influyen sobre la estructura natural y las propiedades del cabello. De esta manera, se pueden mejorar, después de estos tratamientos, por ejemplo, la posibilidad de peinado del cabello seco y mojado, el peso y el cuerpo del cabello o se lo puede proteger de un elevado índice de florecimiento.

En el capítulo reivindicatorio se reclama lo siguiente:

Reivindicaciones 1 a 14 (folios: 248 a 251): Agente acondicionador del cabello que contiene:

- a) Al menos un tensioactivo aniónico.
- b) Al menos una silicona aminofuncional.
- c) Al menos un compuesto polihidroxi con al menos 2 grupos OH, en donde la relación en peso de las siliconas aminofuncionales a los compuestos polihidroxi [(b) a c)] es 1:1 a 100:1.

Reivindicaciones 15 y 16 (folio: 251): Uso de una preparación de acuerdo con las reivindicaciones 1 a 14 para la limpieza de la piel y cabello.

Reivindicación 17 (folio: 251): Procedimiento para el tratamiento de piel y cabello, en el cual se aplica una preparación... sobre la piel y/o el cabello.

El problema planteado en esta solicitud es la necesidad de principios activos o combinaciones de principios activos para agentes cosméticos con buenas propiedades de cuidado y buena degradabilidad biológica. En especial, en formulaciones de colorantes y/o formulaciones con contenido de electrolitos hay necesidad de principios activos de cuidado adicionales que se pueden incorporar sin problemas en las formulaciones conocidas.

La solución propuesta por la presente solicitud consiste en un agente acondicionador de cabello que contiene un tensioactivo aniónico, siliconas aminofuncionales y compuestos polihidroxi.

El objeto de la solicitud definido anteriormente se clasificó en la IPC A61K 7/06.

4. De la solicitud de Patente

4.1. Reivindicaciones (artículo 30 D 486)

De acuerdo con lo revelado en el capítulo reivindicatorio, la reivindicación 1 (folio: 248) no es concisa por cuanto no menciona los componentes del agente acondicionador en forma específica, simplemente dice que dicho agente contiene: "tensioactivo", "silicona aminofuncional" y "compuesto polihidroxi". Asimismo, la relación en peso de las siliconas aminofuncionales a los compuestos polihidroxi es un rango que tampoco es conciso: 1:1 a 100:1.

De otro lado, aparecen términos que son bastante ambiguos y no son claros: "al menos", "preferentemente", entre otros.

La reivindicación 14 (folio: 251) que se relaciona con un agente de acuerdo con la reivindicación 1, no está caracterizada por sus componentes sino por una característica deseable o resultado a obtener como es si es "transparente o translúcido".

La reivindicación 17 (folio: 251) que menciona un procedimiento para el tratamiento de piel y cabello, no está definido por sus pasos o etapas ni menciona las variables que intervienen en él, sino que se refiere a la aplicación de un producto sobre la piel y/o el cabello. Hay que recordar que un procedimiento se debe definir por sus etapas y no por el uso o aplicación que se le pueda dar al producto obtenido.

5. Reivindicaciones relativas a un uso o a un uso distinto (artículos 14 y 21 D 486)

La(s) reivindicación (es) 15 a 17 (folio: 251), que se refiere(n) al uso de una preparación... para la limpieza de piel y cabello, y la aplicación de la preparación... sobre la piel y/o cabello, no se encuentra(n) dentro del campo de la patentabilidad (productos y procedimientos).

6. Análisis de la(s) Oposición(es): (artículo 43 D. 486)

No se presentaron oposiciones al objeto reivindicado en la presente solicitud.

7. Determinación del Estado de la Técnica:

La fecha que se ha tenido en cuenta para determinar el Estado de la Técnica es:

Fecha de presentación de la solicitud prioritaria 25-06-2004.

Teniendo en cuenta la fecha indicada, se buscaron documentos del estado de la técnica relacionados, con fecha de publicación anterior a esta.

Se encontró como anterioridades que pueden afectar la patentabilidad del objeto de la presente solicitud:

Nº	Documento	Título	Fecha de Publicación
D1	US 5415857	Hair conditioning shampoos containing aminosilicone conditioning agent	16 de mayo de 1995
D2	WO 2004/014327	Hair detergent compositions	19 de febrero de 2004
D3	WO 99/59530	Hair treatment composition containing particles of macroporous, highly cross-linked polymer	25 de noviembre de 1999
D4	US 6605577	Clear conditioning detersive compositions containing polysiloxanes with at least one cyclic side chain	12 de agosto de 2003

8. Análisis de patentabilidad (artículo 14 D486)

8.1. Novedad (artículo 16 D486)

Comparando elemento por elemento el objeto de esta solicitud con lo mencionado en las anterioridades, tenemos que:

La presente Solicitud de Patente Colombiana No. 06127979, se refiere a:

Agente acondicionador del cabello, que contiene:

- a) Al menos un tensioactivo aniónico.
- b) Al menos una silicona aminofuncional.
- c) Al menos un compuesto polihidroxi con al menos 2 grupos OH, en donde la relación en peso de las siliconas aminofuncionales a los compuestos polihidroxi [b) a c)] es 1:1 a 100:1.

La anterioridad: US 5415857 (folios: 299 a 305), se relaciona con: un champú acondicionador del cabello que contiene surfactantes aniónicos (por ejemplo lauril sulfato de amonio, lauril sulfato de sodio) en una cantidad de 15% por peso, propilenglicol en una cantidad de 0.5% por peso y una silicona aminofuncional (silicona "B", ejemplo 1) en una cantidad de 0.75% al 3% por peso. Así la proporción de la silicona aminofuncional al poliol se encuentra en el rango de 3:2 a 6:1.

La anterioridad: WO 2004/014327 (folios: 306 a 308), trata sobre: un champú para el cuidado del cabello que contiene lauril sulfato de sodio en una cantidad del 11% por peso, propilenglicol en una cantidad de 0.5% por peso y una silicona amino funcional en una cantidad de 1% por peso. Entonces, la proporción de la silicona amino funcional a los compuestos hidroxilo es de 6:5.

El documento WO 99/59530 (folios: 309 a 312) divulga un champú para el cuidado del cabello que contiene una emulsión de silicona en una cantidad de 6.33% por peso. Esta emulsión contiene una emulsión de dimeticona en un surfactante aniónico así como una microemulsión de una silicona amino funcional (en una cantidad de 0.57% por peso) en un surfactante aniónico. Además, la composición contiene una glicerina en una cantidad de 0.01% por peso. Así la proporción de la silicona amino funcional al poliol es 57:1.

El documento US 6605577 (folios: 313 a 316) se relaciona con un champú para el cuidado del cabello que contiene dodecibencensulfonato de amonio en una cantidad de 18.72% por peso, glicereth-4 (poliol) en una cantidad de 0.56% por peso y una propoxitetrametil-piperidinil-dimeticona en una cantidad de 2.88% por peso. Así la proporción de silicona amino funcional al poliol es 5:1. La composición es transparente.

Como se puede observar, estos documentos revelan composiciones que tienen los mismos componentes del agente acondicionador de la reivindicación 1 de la presente solicitud, además, tienen las mismas cantidades y se encuentran de manera específica.

El elemento característico de agente acondicionador reivindicado, ya era conocido en los documentos US 5415857, WO 2004/014327, WO 99/59530 y US 6605577; por lo cual el agente acondicionador de las reivindicaciones 1 a 14 no pueden considerarse nuevos.

8.2. Nivel inventivo (artículo 18 D486)

La presente Solicitud de Patente reivindica lo siguiente: Agente acondicionador del cabello, que contiene:

- a) Al menos un tensioactivo aniónico.
- b) Al menos una silicona aminofuncional.
- c) Al menos un compuesto polihidroxi con al menos 2 grupos OH, en donde la relación en peso de las siliconas aminofuncionales a los compuestos polihidroxi [b) a c)] es 1:1 a 100:1.

La anterioridad US 5415857 (folios: 299 a 305) describe una composición semejante a la de la reivindicación 1 de la presente solicitud. Este documento menciona que dichas composiciones tienen excelentes propiedades para el peinado óptimo; este documento tiene los mismos componentes de la composición o agente acondicionador de la presente solicitud.

El documento WO 99/59530 (folios: 309 a 312) divulga un champú para el cuidado del cabello que utiliza siliconas como microemulsiones.

El documento US 6605577 (folios: 313 a 316) que se relaciona con una composición transparente que consiste en un champú para el cuidado del cabello que contiene dodecibencensulfonato de amonio, un poliol y una silicona amino funcional.

Como se puede observar estos documentos revelan agentes acondicionadores que tienen los mismos componentes de la composición de la presente solicitud, así como el uso de siliconas amino funcionales para este tipo de composición y que la fórmula del champú, gracias a sus componentes, sea transparente.

En cuanto a los componentes adicionales que puede tener el agente acondicionador como son las vitaminas y polietilenglicol, la persona medianamente versada en la materia conoce que son ingredientes convencionales usados en la fabricación de composiciones cosméticas; de otro lado, en la descripción y ejemplos de la presente solicitud no se especifican detalles de las ventajas de usar estos compuestos en un agente acondicionador.

En cuanto a la reivindicación 15 que se relaciona con un procedimiento para aplicar la preparación de la reivindicación 1 a la piel y/o el cabello, es lo usual que se realiza con cualquier tipo de champú o acondicionador para el cuidado del cabello y el tiempo que invierta la persona que lo aplica no le da características inventivas a la preparación ni al procedimiento de aplicación.

El problema técnico planteado en esta solicitud: la necesidad de principios activos o combinaciones de principios activos para agentes cosméticos con buenas propiedades de cuidado y buena degradabilidad biológica, se había resuelto previamente mediante agentes del cuidado del cabello ya conocidos(as). Por esta razón se considera que los componentes de los agentes acondicionadores reivindicados en la presente solicitud son evidentes para una persona medianamente versada en la materia.

La(s) reivindicación(es) 1 a 14 de esta solicitud no menciona(n) una característica que conceda un efecto inesperado o especial al agente acondicionador, que pueda considerarse como un aporte a la técnica, así que son obvios(as) para una persona versada en la materia.

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Además, puesto que D1, D3 y D4 divulgaban previamente composiciones para el cuidado del cabello (folios: 299 a 305, 309 a 316), una persona conocedora de la materia motivada por tal sugerencia lograría el objeto de esta solicitud un agente acondicionador; de manera que para una persona medianamente versada en la materia sería obvio emplear estos documentos. Por lo cual puede no haber Nivel Inventivo.

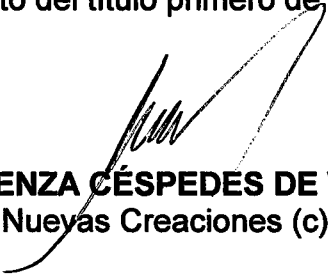
9. Conclusión:

Los requisitos de patentabilidad de la presente solicitud se encuentran afectados así:

Nº	Documento Nº	Reivindicaciones afectadas	Requisito que afecta
D1	US 5415857	1 a 14	Novedad y Nivel Inventivo
D2	WO 2004/014327	1 a 14	Novedad
D3	WO 99/59530	1 a 14	Novedad y Nivel Inventivo
D4	US 6605577	1 a 14	Novedad y Nivel Inventivo

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

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


ALIX CARMENZA CÉSPEDES DE VERGEL
Directora de Nuevas Creaciones (c)

El anterior requerimiento fue notificado por fijación en lista, de fecha 30 ABR 2010

CONCEPTO TÉCNICO No. 1570	EXAMINADOR TÉCNICO Código No. 202005
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