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REGISTRO DE LA PATENTE DE MARCA

2451/P

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO DIVISIÓN DE NUEVAS CREACIONES

E S D

Re Expediente No 01 067 832
Solicitud de Patente en nombre de
Johnson & Johnson Consumer Companies, Inc

Yo, JIMENA ESCOBAR URIBE, identificada como aparece al pie de mi firma, domiciliada en Bogotá, en la Carrera 11 A No 94-76 Of 305, obrando como apoderada de la sociedad Johnson & Johnson Consumer Companies, Inc, solicitante de la patente de la referencia, anexo al presente memorial los siguientes documentos

Copia certificada de la solicitud de Patente Número 09/641,644 presentada en los Estados Unidos de América el día 18 de agosto de 2000, con la debida traducción de lo pertinente, incluyendo el capítulo reivindicatorio

A este mismo respecto, debe tenerse en cuenta que en la primera página de la copia en mención la Oficina de Patentes correspondiente certificó la fecha de presentación de esa solicitud, cumpliéndose de esta forma todos y cada uno de los requisitos establecidos en el inciso segundo del artículo 10 de la Decisión 486 de la Comisión de la Comunidad Andina

Señor Superintendente,



JIMENA ESCOBAR URIBE

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**ESTADOS UNIDOS DE AMERICA
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**DEPARTAMENTO DE COMERCIO DE LOS ESTADOS
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Oficina de Patentes y Marcas de los Estados Unidos**

Agosto 21, 2001

La presente es para certificar que el anexo es una copia fiel de los registros de la Oficina de Patentes y Marcas de los Estados Unidos, de los documentos de la solicitud de patente identificada más adelante, que cumplieron con los requerimientos para concederse una fecha de presentación de acuerdo con 35 USC 111

Número de Solicitud 09/641,644

Fecha de Presentación Agosto 18, 2000

Por la autoridad del
Comisionado de Patentes y Marca

(fdo) E BORNETT
Oficial Certificador
Sello oficial de la Oficina de Patentes y Marcas de los
Estados Unidos de América

REIVINDICACIONES

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1 Una composición que comprende

a) un compuesto de la fórmula I



en donde R = ácido graso de 6 a 30 átomos de carbono, n = de 0 a 20, m = de 0 a 40, y n+m = de 2 a 60, y

b) al menos un agente activo de superficie aniónico,

en donde la composición es suave

2 La composición de la reivindicación 1 formada por, sobre la base del peso total de la composición,

desde aproximadamente 0,01% hasta alrededor de 10,0% del compuesto de la fórmula I, y desde aproximadamente 0,1% hasta alrededor de 20% del agente activo de superficie aniónico

3 La composición de la reivindicación 1, en la cual

el compuesto de la fórmula I se selecciona entre el grupo formado por Cocamida de polietilén glicol-6, Lauramida de polietilén glicol-6, Cocamida de polietilén glicol-3, hidroxietil Cocamida de Polipropilén glicol-2, Hidroxietil Caprilamida propilén glicol-1, Hidroxietil Linoleamida de propilén glicol-3, y

el surfactante aniónico se selecciona entre el grupo formado por sulfatos alquílicos, sulfatos de éteres alquílicos, sulfosuccinatos, isetionatos, acilamidas, carboxilatos de éter alquílico, fosfatos alquílicos, y sus mezclas

- 4 La composición de la reivindicación 3, en la cual el compuesto de la fórmula I se selecciona entre el grupo formado por hidroxietil Cocamida de polipropilén glicol-2, hidroxietil Capnilamida de propilén glicol-1, hidroxietil Linoleamida de propilén glicol-3, y sus mezclas
- 5 La composición de la reivindicación 3, que comprende adicionalmente por lo menos un agente activo de superficie secundario seleccionado entre el grupo formado por no iónicos, anfotéricos, betaína, catiónicos, y sus mezclas
- 6 La composición de la reivindicación 5, en donde el agente activo de superficie no iónico se selecciona entre el grupo formado por etoxilatos ácidos de alcohol graso, etoxilatos de amida de alcohol graso, etoxilatos de monoglicéridos, etoxilatos de éster de sorbitan, poliglicósidos alquílicos, y sus mezclas, y está presente en una cantidad, sobre la base del peso total de la composición, de aproximadamente 0,1% hasta alrededor de 30%

- 40
- 7 La composición de la reivindicación 5, en la cual el agente activo de superficie anfotérico se selecciona entre el grupo formado por alquilimino-proplonatos, alquilanfoglucuronatos (mono o di), alquilanfopropionatos (mono o di), alquilanfocetatos (mono o di), ácidos N-alkil β -aminopropiónicos, alquilpoliamino carboxilatos, imidazolinas fosforiladas, y sus mezclas, y está presente en una cantidad, con base en el peso total de la composición, desde aproximadamente 0,1% hasta alrededor de 20%
- 8 La composición de la reivindicación 5, en donde el agente activo de superficie de betaina se selecciona entre el grupo formado por betainas alquílicas, alquilamido betainas, sultainas alquílicas, alquilamido sultainas, y sus mezclas y está presente en una cantidad, con base en el peso total de la composición de aproximadamente 0,1% hasta alrededor de 15%
- 9 La composición de la reivindicación 5, en donde el agente activo de superficie catiónico se selecciona entre el grupo formado por compuestos cuaternarios alquílicos (mono, di o tri), compuestos cuaternarios bencílicos, ésteres cuaternarios, compuestos cuaternarios etoxilados, alquilaminas, y sus mezclas y está presente en la composición en una cantidad, con relación al peso total de la composición, desde

10 La composición de la reivindicación 5, que comprende, con relación al peso total de la composición

- a) desde aproximadamente 0,01% hasta alrededor de 10,0% del compuesto de la fórmula I,
- b) desde aproximadamente 0,1% hasta alrededor de 20% de por lo menos un agente activo de superficie aniónico seleccionado entre el grupo formado por sulfatos alquílicos, sulfatos de éteres alquílicos, sulfosuccinatos, isetionatos, amidas acílicas, carboxilatos de éteres alquílicos, fosfatos alquílicos, y sus mezclas,
- c) desde aproximadamente 0,1% hasta alrededor de 30% de al menos un agente activo de superficie no iónico, seleccionado entre el grupo formado por etoxilatos ácidos de alcohol graso, etoxilatos de amida de alcohol graso, etoxilatos de monoglicéidos, etoxilatos de éster de sorbitan, poliglicósidos alquílicos, y sus mezclas, y
- d) desde aproximadamente 0,1% hasta alrededor de 20% de por lo menos un agente activo de superficie anfotérico seleccionado entre el grupo formado por alquilimino-dipropionatos, alquilanfoglisinatos (mono o di), alquilanfopropionatos (mono o di), alquilanfocetatos (mono o di), ácidos N-alquil β-aminopropiónicos, alquilpoliamino carboxilatos, imidazolinas fosforiladas, y sus mezclas

- 11 La composición de la reivindicación 10 formada por, sobre la base del peso total de la composición,**
desde aproximadamente 0,1% hasta alrededor de 7,0% del compuesto de la fórmula I,
desde aproximadamente 0,5% hasta alrededor de 10% de agente activo de superficie aniónico,
desde aproximadamente 0,1% hasta alrededor de 20% de agente activo de superficie no iónico, y
desde aproximadamente 0,1% hasta alrededor de 15% de agente activo de superficie anfotérico
- 12 La composición de la reivindicación 10, que comprende adicionalmente, con base en el peso total de la composición,**

desde aproximadamente 0,1% hasta alrededor de 15% de por lo menos una betaína seleccionada entre el grupo formado por alquil betaínas, alquilamido betaínas, alquil sultaínas, alquilamido sultamidas y sus mezclas
- 13 La composición de la reivindicación 12, en donde la composición está formada por, sobre la base del peso total de la composición,**
desde aproximadamente 0,1% hasta alrededor de 7,0% del compuesto de la fórmula I,

desde aproximadamente 0,5% hasta alrededor de 10% de agente activo de superficie aniónico,
desde aproximadamente 0,1% hasta alrededor de 20% de agente activo de superficie no iónico,
desde aproximadamente 0,1% hasta alrededor de 15% de agente activo de superficie anfotérico, y
desde aproximadamente 0,1% hasta alrededor de 10% de betaina

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- 14 La composición de la reivindicación 10, que comprende adicionalmente, sobre la base del peso del peso total de la composición, desde aproximadamente 0,1% hasta alrededor de 20% de por lo menos un agente activo de superficie catiónico seleccionado entre el grupo formado por compuesto alquílicos cuaternarios (mono, di o tri), compuestos bencílicos cuaternarios, ésteres cuaternarios, compuestos cuaternarios etoxilados, alquilaminas, y sus mezclas
- 15 La composición de la reivindicación 14, en donde la composición está formada por, sobre la base del peso total de la composición,
desde aproximadamente 0,1% hasta alrededor de 7,0% del compuesto I,
desde aproximadamente 0,5% hasta alrededor de 10% de agente activo de superficie aniónico,

desde aproximadamente 0,1% hasta alrededor de 20% de agente activo de superficie no iónico,
 desde aproximadamente 0,1% hasta alrededor de 15% de agente activo de superficie anfotérico,
 desde aproximadamente 0,1% hasta alrededor de 10% de betaína, y
 desde aproximadamente 0,05% hasta alrededor de 15% de agente activo de superficie catiónico

- 16 La composición de la reivindicación 15, en donde la composición está formada por, sobre la base del peso total de la composición,
- desde aproximadamente 0,5% hasta alrededor de 3,0% del compuesto I,
- desde aproximadamente 0,75% hasta alrededor de 5,0% de agente activo de superficie aniónico,
- desde aproximadamente 0,1% hasta alrededor de 15% de agente activo de superficie no iónico,
- desde aproximadamente 0,1% hasta alrededor de 10% de agente activo de superficie anfotérico,
- desde aproximadamente 0,1% hasta alrededor de 8,0% de betaína, y
- desde aproximadamente 0,1% hasta alrededor de 10% de agente activo de superficie catiónico

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PA 455442



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

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United States Patent and Trademark Office

August 21, 2001

**THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM
THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK
OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT
APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A
FILING DATE UNDER 35 USC 111**

APPLICATION NUMBER. 09/641,644

FILING DATE August 18, 2000



**By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS**

E. Bornett
E BORNETT
Certifying Officer

08-21 00

Please type a plus sign (+) inside this box ☐UTILITY
PATENT APPLICATION
TRANSMITTAL

Attorney Docket No. JBP-513

First Named Inventor or Application Identifier

Librizzi, et al

Express Mail Label No. EL190926068US

APPLICATION ELEMENTS

See MPEP Chapter 600 concerning utility patent application contents.

ADDRESS TO

Assistant Commissioner for Patents
Box Patent Application
Washington, DC 202311 ☒ Fee Transmittal Form (attached hereto in duplicate)2 ☒ Specification [Total Pages 17]

(Preferred arrangement set forth below)

- Descriptive Title of the Invention
- Cross References to Related Applications
- Statement Regarding Fed sponsored R&D
- Reference to Microfiche Appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

3 ☐ Drawing(s) (35 USC 113) [Total Sheets]

4 Oath or Declaration

- a. ☐ Newly executed (original or copy)
- b. ☒ Unexecuted original
- c. ☐ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional check boxes 5 and 16)
- d. ☐ Deletion of inventor(s)

Signed statement attached deleting
inventor(s) named in the prior application,
see 37 CFR 1.63(d)(2) and 1.33(b)5 ☐ Incorporation by Reference

(useable if Box 4c is checked)

The entire disclosure of the prior application from
which a copy of the oath or declaration is supplied
under Box 4c, is considered as being part of the
disclosure of the accompanying application and is
hereby incorporated by reference therein8 ☐ Microfiche Computer Program (Appendix)7 Nucleotide and/or Amino Acid Sequence
Submission (If applicable, all necessary)

- a. ☐ Computer Readable Copy
- b. ☐ Paper Copy (Identical to computer copy)
- c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

- 8 ☐ Assignment Papers (cover sheet &
document(s))
- 9 ☐ 37 CFR 3.73(b) Statement
(when there is an assignee) ☐ Power of Attorney
- 10 ☐ English Translation Document (if applicable)
- 11 ☐ Information Disclosure Statement
(IDS)/PTO-1449 ☐ Copies of IDS Citations
- 12 ☐ Preliminary Amendment
- 13 ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
- 14 ☐ Certified Copy of Priority Document(s)
(If foreign priority is claimed)

15. ☐ Other16 ☐ If a CONTINUING APPLICATION check appropriate box and supply the requisite information.Amend the specification by inserting before the first line: - This is a ☐ Continuation ☐ Divisional
☐ Continuation-in-Part (CIP) of prior application No. , filed -

17 For this divisional application, please cancel original Claims of the prior application before calculating the filing fee.

18 CORRESPONDENCE ADDRESS

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19 TELEPHONE CONTACT

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Telephone (732) 524-2810 Fax (732) 524-2808

19 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

NAME Michele G Mangini Reg No 38806

SIGNATURE

DATE

August 18, 2000

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VISCOUS, MILD, AND EFFECTIVE CLEANSING COMPOSITIONS

BACKGROUND OF THE INVENTION

1 Field Of The Invention

The present invention relates to a cleansing composition which is mild to the skin and eyes and possesses sufficient viscosity with appropriate cleansing and foaming performance.

2. Description Of The Prior Art

Historically many mild cleansing compositions suffer from poor foaming and cleansing performance. As used herein the term "mild cleansing compositions" refer to compositions that, when instilled into human eyes at about a 10% dilution level, cause an ocular irritation that is less than or equivalent to the irritation caused by a similar addition of sterile water thereto. In many cases the ocular stinging effect of a composition on the eye is concentration dependent. Therefore, one way to reduce ocular irritancy is to minimize the amount of the cleansing composition that gets into the eye via increasing the viscosity of the product. For example the viscosity of a shampoo may be sufficiently increased in order to minimize the amount that may drip from the head into the eyes during its use. However it can be difficult or costly to thicken shampoos.

One known method for thickening mild cleansing compositions is via the addition of a viscosity builder such as a salt, e.g. sodium chloride to a cleansing composition. However the use of sodium chloride at high levels negatively impacts eye irritation. Another method for thickening mild cleansing compositions is via the addition of polymeric thickeners such as hydroxyethyl cellulose to the composition. Unfortunately many of the polymeric thickeners are incompatible with surfactant systems and therefore contribute to instability of the final product. Yet another popular method for thickening mild cleansing compositions is via the addition of a polyol alkoxy ester to the composition. In each of these approaches, the compound is added merely to build viscosity of the cleansing system, thereby adding cost while contributing little else to the performance of the system.

A better approach to the problem is to incorporate surfactants that both build viscosity and contribute to the foaming and cleansing performance of the surfactant system while maintaining low cost. One such class of surfactants that have been used extensively for this purpose includes the alkanolamides, such as the fatty acid diethanolamides. The use of ethoxylated diethanolamines as irritancy mitigators has been described in U.S. Pat. No. 4,338,151. In U.S. Pat. No. 4,205,063 the use of fatty acid diethanolamide has been

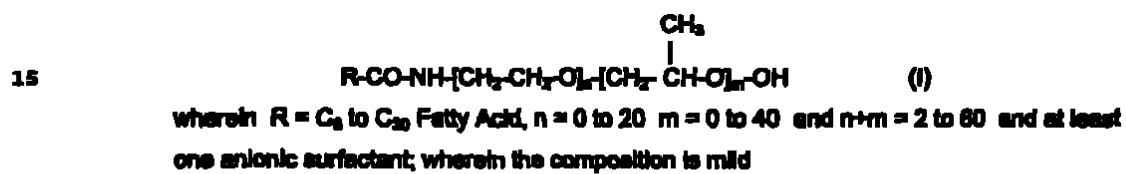
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described in low irritation shampoo formulas as a foam booster. Unfortunately the use of diethanolamides in cosmetic preparations has recently come under scrutiny due to safety concerns regarding their possible carcinogenicity.

Therefore there is a need for a cosmetic ingredient that is capable of viscosity building and foam boosting without compromising the mildness and safety properties of the overall cleansing composition.

SUMMARY OF THE INVENTION

It has been discovered that the aforementioned objective can be achieved by selecting specific compounds to increase the viscosity while building the foam of a cleansing composition. The present invention provides a cleansing composition including a compound of formula I



DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

The cleansing composition of the present invention is comprised of, consists of, and/or consists essentially of based upon the total weight of the composition: a) from about 0.01% to about 10.0%, e.g. from about 0.1% to about 7.0% and from about 0.5% to about 3.0% of the compound of Formula I; and b) from about 0.1% to about 20% e.g. from about 0.5% to about 10% and from about 0.75% to about 5% of an anionic surfactant.

The compound of Formula I may be selected from ethoxylated fatty amides, propoxylated fatty amides, fatty amides that contain both ethoxylate and propoxylate groups, and mixtures thereof. Suitable compounds include but are not limited to, polyethylene glycol ("PEG")-8 Cocamide, PEG-8 Lauramide, PEG-3 Cocamide, polypropylene glycol ("PPG")-2 Hydroxyethyl Cocamide, PPG-1 Hydroxyethyl Caprylamide, and PPG-3 Hydroxyethyl Linoleamide. The preferred compounds include PPG-2 Hydroxyethyl Cocamide which is available from Uniqema under the tradename, "Promidium CO", PPG-1 Hydroxyethyl Caprylamide, which is available from Uniqema under the tradename "Promidium CC", PPG-3 Hydroxyethyl Linoleamide, which is available from

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Uniqema under the tradename, "Promidium SY" and PEG-3 Cocamide, which is available from Heterene, Inc. under the tradename, "Heteramide CD-4."

Classes of anionic surfactants useful in this invention include the alkyl sulfates, alkyl ether sulfates, sulfosuccinates, laethlonates, acyl amides, alkyl ether carboxylates and alkyl phosphates, wherein the alkyl group has from about 6 carbon atoms to about 30 carbon atoms, with about 10 to about 14 carbon atoms being preferred.

In addition to at least one anionic surfactant, the mild cleansing composition of the invention may optionally contain a secondary surfactant selected from nonionic, amphoteric, betaine, cationic, and mixtures thereof. The total amount of anionic surfactant and secondary surfactant(s) that are suitable for use in the composition of the present invention may range from, based upon the total weight of the total cleansing composition, from about 2.5% to about 50%, e.g. from about 5% to about 40% and from about 5% to about 25%.

Types of nonionic surfactants that are suitable for use in this invention include the fatty alcohol acid or amide ethoxylates, monoglyceride ethoxylates, sorbitan ester ethoxylates and alkyl polyglycosides. These nonionic surfactants can be employed in composition of the present invention in an amount, based upon the total weight of the composition, from about 0.0% to about 30%, e.g. from about 0.1% to about 20% and from about 0.1% to about 15%.

Classes of amphoteric surfactants that are suitable for use in this invention include alkylimino-dipropionates, alkylamphoglycinates (mono or di), alkylamphopropionates (mono or di), alkylamphosacetates (mono or di), N-alkyl β -aminopropionic acids, alkylpolyamino carboxylates and phosphorylated imidazolines. These amphoteric surfactants can be employed in composition of the present invention in an amount, based upon the total weight of the composition, from about 0.1% to about 20%, e.g. from about 0.1% to about 15% and from about 0.1% to about 10%.

Types of betaines that are suitable for use in this invention include alkyl betaines, alkylamido betaines, alkyl sultaines and alkylamido sultaines, wherein the alkyl group has from about 6 carbon atoms to about 30 carbon atoms, with about 10 to about 14 carbon atoms being preferred. These betaine surfactants can be employed in the cleansing composition of the present invention in an amount, based upon the total weight of the cleansing composition, from about 0.1% to about 15%, e.g. from about 0.1% to about 10% and from about 0.1% to about 8%.

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Classes of cationic surfactants that are suitable for use in this invention include alkyl quaternaries (mono, di, or tri), benzyl quaternaries, ester quaternaries, ethoxylated quaternaries, alkyl amines, and mixtures thereof wherein the alkyl group has from about 8 carbon atoms to about 30 carbon atoms, with about 8 to about 22 carbon atoms being preferred. These cationic surfactants can be employed in composition of the present invention in an amount, based upon the total weight of the composition, from about 0.01% to about 20%, preferably from about 0.05% to about 15% and more preferably from about 0.1% to about 10%.

Optionally the mild cleansing compositions of this invention may also contain, based upon the total weight of the mild cleansing composition, from about 0.01 percent to about 1.0 percent, preferably from about 0.01 percent to about 0.5 percent, and more preferably from about 0.01 to about 0.2 percent of at least one conditioning agent. Examples of suitable cationic conditioning agents nonexclusively include cationic cellulose derivatives, cationic guar derivatives, and diallyldimethylammonium chloride. Other suitable conditioning agents include those disclosed in United States Patent No. 5,878,705 which is incorporated herein by reference. Surfactant soluble non-volatile silicone conditioning agents are also useful.

The cationic cellulose derivative may be a polymeric quaternary ammonium salt derived from the reaction of hydroxyethyl cellulose with a trimethylammonium substituted epoxide. The material known as Polyquaternium-10, commercially available from Amerchol Corporation of Edison, New Jersey as "Polymer JR-400," is especially useful in this regard.

The cationic guar derivative may be a guar hydroxypropyltrimonium chloride, available commercially from Rhodia of Cranbury, New Jersey under the tradename, "Jaguar C-17."

Other useful cationic conditioning polymers are those derived from the monomer diallyldimethylammonium chloride. The homopolymer of this monomer is Polyquaternium-8 which is available commercially from Allied Colloids of Suffolk, Virginia under the tradename "Salcare SC30." The copolymer of diallyldimethylammonium chloride with acrylamide is known as Polyquaternium-7 and is also available from Allied Colloids under the tradename "Salcare SC10."

The mild cleansing compositions of the present invention may also include one or more optional ingredients nonexclusively including a pearlescent or opacifying agent, a thickening agent, secondary conditioners, humectants, chelating agents, and additives.

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which enhance their appearance, feel and fragrance such as colorants, fragrances, preservatives, pH adjusting agents and the like. The pH of the mild cleansing compositions of this invention is preferably maintained in the range of from about 5 to about 7.5 and more preferably from about 5.5 to about 7.0.

Commercially available pearlescent or opacifying agents which are capable of suspending water insoluble additives such as silicones and/or which tend to indicate to consumers that the resultant product is a conditioning shampoo are suitable for use in this invention. The pearlescent or opacifying agent may be present in an amount, based upon the total weight of the composition, of from about 1 percent to about 10 percent, preferably from about 1.5 percent to about 7 percent, and more preferably from about 2 percent to about 5 percent. Examples of suitable pearlescent or opacifying agents include, but are not limited to mono or diesters of (a) fatty acids having from about 16 to about 22 carbon atoms and (b) either ethylene or propylene glycol, mono or diesters of (a) fatty acids having from about 16 to about 22 carbon atoms (b) a polyalkylene glycol of the formula $HO-(JO)_x-H$ wherein J is an alkylene group having from about 2 to about 3 carbon atoms and x is 2 or 3, fatty alcohols containing from about 16 to about 22 carbon atoms, fatty esters of the formula: $KCOOCH_2L$, wherein K and L independently contain from about 16 to about 21 carbon atoms. Inorganic solids insoluble in the shampoo composition and mixtures thereof.

The pearlescent or opacifying agent may be introduced to the mild cleansing composition as a pre-formed, stabilized aqueous dispersion such as that commercially available from Henkel Corporation of Hoboken, New Jersey under the tradename "Euperlan PK-3000". This material is a combination of glycol distearate (the diester of ethylene glycol and stearic acid), Laureth-4 ($CH_3(CH_2)_{10}CH_2(OCH_2CH_2)_4OH$) and cocamidopropyl betaine and preferably is in a weight percent ratio of from about 25 to about 30, about 3 to about 16, about 20 to about 25 respectively.

Commercially available thickening agents, which are capable of imparting the appropriate viscosity to the mild cleansing compositions are suitable for use in this invention. If used, the thickener should be present in the shampoo compositions in an amount sufficient to raise the Brookfield viscosity of the composition to a value of between about 500 to about 10,000 centipoise. Examples of suitable thickening agents nonexclusively include: mono or diesters of 1) polyethylene glycol of formula: $HO-(CH_2CH_2O)_zH$, wherein z is an integer from about 3 to about 200; and 2) fatty acids containing from about 16 to about 22 carbon atoms, fatty acid esters of ethoxylated polyols; ethoxylated derivatives of mono and diesters of fatty

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acids and glycerine; hydroxyalkyl celluloses; alkyl celluloses; hydroxyalkyl alkyl celluloses; and mixtures thereof. Preferred thickeners include polyethylene glycol ester, and more preferably PEG-150 distearate which is available from the Stepan Company of Northfield, Illinois or from Cornel S.p.A. of Bologna, Italy under the tradename, "PEG 8000 DS".

5 Commercially available secondary conditioners, such as volatile silicones which impart additional attributes, such as gloss to the hair are suitable for use in this invention. Preferably the volatile silicone conditioning agent has an atmospheric pressure boiling point less than about 220°C. The volatile silicone conditioner may be present in an amount of from about 0 percent to about 3 percent, preferably from about 0.25 percent to about 2.5 percent, and more preferably from about 0.5 percent to about 1.0 percent, based on the overall weight of the composition. Examples of suitable volatile silicones nonexclusively include polydimethylsiloxane, polydimethylcyclodioxane, hexamethyldisiloxane, cyclomethicone fluids such as polydimethylcyclodioxane available commercially from Dow Corning Corporation of Midland, Michigan under the tradename, "DC-345" and mixtures thereof and preferably include cyclomethicone fluids.

15 Commercially available humectants, which are capable of providing moisturization and conditioning properties to the mild cleansing composition, are suitable for use in the present invention. The humectant may be present in an amount of from about 0 percent to about 10 percent, preferably from about 0.5 percent to about 5 percent, and more preferably from about 0.5 percent to about 3 percent, based on the overall weight of the composition. Examples of suitable humectants nonexclusively include: 1) water soluble liquid polyols selected from the group comprising glycerine, propylene glycol, hexylene glycol, butylene glycol, dipropylene glycol, and mixtures thereof; 2) polyalkylene glycol of the formula $\text{HO}-(\text{R}'\text{O})_b-\text{H}$ wherein R' is an alkylene group having from about 2 to about 3 carbon atoms and b is an integer of from about 2 to about 10; 3) polyethylene glycol ether of methyl glucose of formula $\text{CH}_3-\text{C}_6\text{H}_{10}\text{O}_6-(\text{OCH}_2\text{CH}_2)_c-\text{OH}$, wherein c is an integer from about 5 to about 28; 4) urea; and 5) mixtures thereof with glycerine being the preferred humectant.

25 Examples of suitable chelating agents include those which are capable of protecting and preserving the compositions of this invention. Preferably, the chelating agent is ethylenediamine tetracetic acid ("EDTA"), and more preferably is tetrasodium EDTA, available commercially from Dow Chemical Company of Midland, Michigan under the tradename, "Versene 100XL" and is present in an amount, based upon the total weight of the composition,

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from about 0 to about 0.5 percent, and preferably from about 0.05 percent to about 0.25 percent.

5 Suitable preservatives include Quaternium-15, available commercially as "Dowicil 200" from the Dow Chemical Corporation of Midland, Michigan, and are present in the composition in an amount, based upon the total weight of the composition, from about 0 to about 0.2 percent, and preferably from about 0.05 percent to about 0.10 percent.

10 The above described mild cleansing composition may be prepared by combining the desired components in a suitable container and mixing them under ambient conditions in any conventional mixing means well known in the art, such as a mechanically stirred propeller, paddle, and the like. Although the order of mixing is not critical, it is preferable to pre-blend certain components such as the fragrance and the nonionic surfactant before adding such components into the main mixture.

15 The compositions of the present invention are preferably used in personal care products such as shampoos, washes, baths, gels, lotions, creams, and the like.

20 The invention illustratively disclosed herein suitably may be practiced in the absence of any component, ingredient, or step which is not specifically disclosed herein. Several examples are set forth below to further illustrate the nature of the invention and the manner of carrying it out. However, the invention should not be considered as being limited to the details thereof.

20 **EXAMPLES**

 The following tests were used in the Examples.

25 1. Foam Generation: 1 g of a cleansing composition sample was added to a tray containing 5 liters of tap water, then gently mixed until homogeneous without generating any foam. A Model AJMP14 Jiffy Mixer mechanical mixer available from U.S. Best, Inc. with an attached propeller blade was then set at a level in the tray such that the propeller blade was halfway immersed in the mixture. The mixer was then activated at a speed of 2000 RPM for 30 seconds to generate foam. Foam data was collected via photography using a Polaroid MP4+ camera at 30 seconds after the mixing was ceased. The area of foam in the tray was calculated and reported as % area of foam in tray.

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2. Ocular Irritancy Test: Using a double-blinded, randomized, two (2) cell study test design one (1) drop of a sample (e g a 10% dilution of a cleansing composition in water) at a temperature of about 38°C was instilled into a subject's eye. A new sterile disposable eyedropper was used for each sample and disposed of after being used on only one individual's eye. All instillations were performed either by an investigator or by a trained technician

Within 30 seconds, or as closely as possible following instillation the subject was asked to grade the perceived stinging sensation to the eye utilizing the following criteria.

Sting

- 0 = Within normal limits
- 1 = Mild, very slight
- 2 = Moderate
- 3 = Severe

After 15 minutes and 60 minutes post-instillation, the subject was again asked to grade the perceived stinging sensation to the eye The data was collected from a balanced, complete block experiment then statistically analyzed.

Examples 1 - 8. Preparation of Cleansing Compositions

The cleansing compositions of Examples 1 through 8 were prepared according to the materials and amounts listed in Table 1

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Table 1

INCI Name	1	2	3	4	5	6	7	8
Disodium Lauroamphodiacetate	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Sodium Trideceth Sulfate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PEG-6 Cocamide	-	1.0	-	-	-	-	-	-
PEG-6 Lauramide	-	-	1.0	-	-	-	-	-
PEG-3 Cocamide	-	-	-	1.0	-	-	-	-
Cocamide MIPA	-	-	-	-	1.0	-	-	-
Cocamide MEA	-	-	-	-	-	1.0	-	-
Cocamide DEA	-	-	-	-	-	-	1.0	-
PPG-2 Hydroxyethyl Cocamide	-	-	-	-	-	-	-	1.0
Quaternium-22	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Glycerin	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
PEG-120 Methyl Glucose Dioleate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
POE 80 Sorbitan Monolaurate	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Sodium Laureth-13 Carboxylate	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Polyquaternium 10	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Cocamidopropyl Betaine	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Tetrasodium EDTA	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Quaternium 15	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Citric Acid, USP	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Water	86.43	86.43	86.43	86.43	86.43	86.43	86.43	86.43

The compositions of Examples 1 were prepared as follows

Component amounts in this procedure are given in terms of parts by weight of active to prepare 100 parts of the cleansing composition. Water (50.0 parts) was heated to a temperature of about 50 °C to 55 °C with agitation. To the water was added 1.0 part of Polyquaternium-10 with agitation until the solution was homogenous. After 1.0 part of Quaternium-22 was added thereto with agitation until the solution was homogenous. 1.0 part of PEG-120 Methyl Glucose Dioleate was then added with agitation until all of the PEG-120 Methyl Glucose Dioleate dissolved. After 0.23 parts of Sodium Laureth-13 Carboxylate were added thereto with agitation until the solution was homogenous, cooling was commenced. The following components were then added sequentially thereto: 2.8 parts Cocamidopropyl Betaine, 0.6 parts Disodium Lauroamphodiacetate, 1.0 part Ethoxylated

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and/or Propoxylated Fatty Amide, 3.0 parts Sodium Trideceth Sulfate, and 3.3 parts of POE-80 Sorbitan Monoaurate

After this mixture had cooled to a temperature not greater than 40° C the following components were added sequentially thereto: 0.10 parts Tetrasodium EDTA, 0.05 parts Quaternium-15, and 1.9 parts Glycerin. After this solution mixture had cooled to room temperature (approximately 25° C), the pH of the resulting solution was then adjusted with a 20% citric acid solution until a final pH of 6.0 to 6.6 was obtained. The batch weight of the solution was then adjusted with water in order to achieve a total formulation of 100 parts. Table 2 lists the final batch viscosity of each Example as measured by a Brookfield DV-1+ Viscometer using the indicated spindle and speed.

Table 2

	Final Viscosity (cps)	Brookfield Spindle @ Speed
Example 1	92.4	#1 @ 6 RPM
Example 2	208	#2 @ 30 RPM
Example 3	268	#2 @ 30 RPM
Example 4	862	#2 @ 30 RPM
Example 5	2970	#2 @ 6 RPM
Example 6	2380	#2 @ 6 RPM
Example 7	1735	#2 @ 6 RPM
Example 8	1252	#2 @ 30 RPM

The viscosity of the examples was considered acceptable if it was at least twice the viscosity of Example 1. The data above demonstrate that PEG-6 Cocamide, PEG-6 Laureamide, PEG-3 Cocamide, Cocamide MIPA, Cocamide MEA, Cocamide DEA, and PPG-2 Hydroxyethyl Cocamide were effective at increasing the viscosity of a mild cleansing composition.

Examples 9 – 16: Foam Performance Evaluation

Foam performance evaluation was then accomplished for each of the cleansing compositions of Examples 1 – 8. Results of the Foam Tray Test are reported in Table 3 below.

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Table 3 - Foam Performance Evaluation

	Foam Quantity (@ 30 Seconds (%))
Example 1	3.00
Example 2	49.0
Example 3	88.5
Example 4	83.8
Example 5	12.0
Example 6	19.5
Example 7	13.5
Example 8	13.0

Foaming of the Examples was considered acceptable if it was at least twice the amount of foam of Example 1. These Examples show that PEG-6 Cocamide, PEG-6 Lauramide, PEG-3 Cocamide, Cocamide MIPA, Cocamide MEA, Cocamide DEA, and PPG-2 Hydroxyethyl Cocamide are effective at increasing foam generation in mild cleansing compositions.

Examples 17 - 24. Ocular Irritancy Test

The samples of Examples 1 - 8 were tested for ocular irritancy. The results are reported in Table 4 in terms of the percentage of subjects who found the respective sample to be stinging to their eyes.

Table 4

	Human Ocular Sting (EXAMPLE)	Statistical Significance
Example 1	0%	NS
Example 2	7%	NS
Example 3	7%	NS
Example 4	3%	NS
Example 5	40%	*
Example 6	37%	*
Example 7	13%	NS
Example 8	13%	NS

NS = Example not statistically different than Control

* = Example is statistically different than Control

A sample was considered to have low ocular irritancy if less than 20% of the people tested found the sample to sting their eyes.

This Example shows that PEG-6 Cocamide, PEG-6 Lauramide, PEG-3 Cocamide, Cocamide DEA, and PPG-2 Hydroxyethyl Cocamide are significantly more mild to the eye.

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than Cocamide MIPA and Cocamide MEA when present in the mild cleansing compositions of this invention

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I Claim.

1 A composition comprising:

a) a compound of formula I

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wherein R = C₈ to C₂₂ Fatty Acid, n = 0 to 20, m = 0 to 40 and n+m = 2 to 60 and

b) at least one anionic surfactant;

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wherein the composition is mild

2. The composition of claim 1 comprised of, based upon the total weight of the composition

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from about 0.01% to about 10.0% of the compound of formula I and from about 0.1% to about 20% of the anionic surfactant.

3. The composition of claim 1, wherein

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the compound of formula I is selected from the group consisting of polyethylene glycol-6 Cocamide, polyethylene glycol-6 Lauramide, polyethylene glycol-3 Cocamide, polypropylene glycol-2 Hydroxyethyl Cocamide, polypropylene glycol-1 Hydroxyethyl Caprylamide, polypropylene glycol-3 Hydroxyethyl Linoleamide, and mixtures thereof; and

the anionic surfactant is selected from the group consisting of alkyl sulfates, alkyl ether sulfates, sulfosuccinates, laethionates, acyl amides, alkyl ether carboxylates, alkyl phosphates, and mixtures thereof

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4. The composition of claim 3, wherein

the compound of formula I is selected from the group consisting of polypropylene glycol-2 Hydroxyethyl Cocamide, polypropylene glycol-1 Hydroxyethyl Caprylamide, polypropylene glycol-3 Hydroxyethyl Linoleamide and mixtures thereof

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5. The composition of claim 3 further comprising at least one secondary surfactant selected from the group consisting of nonionic, amphoteric, betaine, cationic, and mixtures thereof

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5 6 The composition of claim 5 wherein the nonionic surfactant is selected from the group consisting of fatty alcohol acid ethoxylates fatty alcohol amide ethoxylates, monoglyceride ethoxylates, sorbitan ester ethoxylates alkyl polyglycosides and mixtures thereof and is present in an amount, based upon the total weight of the composition from about 0.1% to about 30%

10 7 The composition of claim 5 wherein the amphoteric surfactant is selected from the group consisting of alkylimino-dipropionates alkylamphoglycinates (mono or di), alkylamphopropionates (mono or di) alkylamphocetates (mono or di), N-alkyl β -alaninopropionic acids, alkylpolyamino carboxylates, phosphorylated imidazolines, and mixtures thereof, and is present in an amount, based upon the total weight of the composition, from about 0.1% to about 20%

15 8. The composition of claim 5, wherein the betaine surfactant is selected from the group consisting of alkyl betaines, alkylamido betaines, alkyl sultaines, alkylamido sultaines, and mixtures thereof and is present in an amount, based upon the total weight of the composition, from about 0.1% to about 15%.

20 9 The composition of claim 5 wherein the cationic surfactant is selected from the group consisting of alkyl quaternaries (mono, di or tri), benzyl quaternaries, ester quaternaries, ethoxylated quaternaries alkyl amines, and mixtures thereof and is present in the composition in an amount, based upon the total weight of the composition, from about 0.01% to about 20%

25 10. The composition of claim 5, comprising based upon the total weight of the composition
a) from about 0.01% to about 10.0% of the compound of formula I
b) from about 0.1% to about 20% of at least one anionic surfactant selected from the group consisting of alkyl sulfates alkyl ether sulfates, sulfosuccinates, laethionates acyl amides, alkyl ether carboxylates alkyl phosphates, and mixtures thereof
30 c) from about 0.1% to about 30% of at least one nonionic surfactant selected from the group consisting of fatty alcohol acid ethoxylates fatty alcohol amide ethoxylates, monoglyceride ethoxylates, sorbitan ester ethoxylates alkyl polyglycosides, and mixtures thereof and

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- c) d) from about 0.1% to about 20% of at least one amphoteric surfactant selected from the group consisting of alkylimino-dipropionates, alkylamphoglycinates (mono or di), alkylamphopropionates (mono or di), alkylamphoacetates (mono or di), N-alkyl β -aminopropionic acids, alkylpolyamino carboxylates, phosphorylated imidazolines, and mixtures thereof

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11. The composition of claim 10 comprised of, based upon the total weight of the composition

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from about 0.1% to about 7.0% of the compound of formula I
from about 0.5% to about 10% of anionic surfactant;
from about 0.1% to about 20% of nonionic surfactant; and
from about 0.1% to about 15% of amphoteric surfactant.

12. The composition of claim 10, further comprising based upon the total weight of the composition

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from about 0.1% to about 15% of at least one betaine selected from the group consisting of ethyl betaines, alkylamido betaines, alkyl sulfaines, alkylamido sulfaines and mixtures thereof

13. The composition of claim 12, wherein the composition is comprised of based upon the total weight of the composition,

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from about 0.1% to about 7.0% of compound of formula I
from about 0.5% to about 10% of anionic surfactant;
from about 0.1% to about 20% of nonionic surfactant;
from about 0.1% to about 15% of amphoteric surfactant; and
from about 0.1% to about 10% of betaine

25

14. The composition of claim 10 further comprising based upon the total weight of the composition from about 0.1% to about 20% of at least one cationic surfactant selected from the group consisting of alkyl quaternaries (mono, di, or tri), benzyl quaternaries, ester quaternaries, ethoxylated quaternaries, alkyl amines and mixtures thereof

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15. The composition of claim 14 wherein the composition is comprised of based upon the total weight of the composition

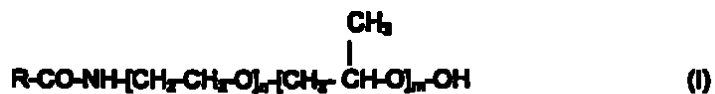
- from about 0.1% to about 7.0% of compound I
- from about 0.5% to about 10% of anionic surfactant;
- from about 0.1% to about 20% of nonionic surfactant;
- from about 0.1% to about 15% of amphoteric surfactant;
- from about 0.1% to about 10% of betaine; and
- from about 0.05% to about 15% of cationic surfactant.

16 The composition of claim 15, wherein the composition is comprised of based upon the total weight of the composition,
from about 0.5% to about 3.0% of compound I
from about 0.75% to about 5.0% of anionic surfactant;
from about 0.1% to about 15% of nonionic surfactant;
from about 0.1% to about 10% of amphoteric surfactant;
from about 0.1% to about 8.0% of betaine; and
from about 0.1% to about 10% of cationic surfactant.

008180-4491960

Abstract Of The Disclosure

A cleansing composition which is mild to the skin and eyes is disclosed. The composition includes a compound of formula I



wherein R = C₈ to C₂₀ Fatty Acid n = 0 to 20, m = 0 to 40, and n+m = 2 to 60, and at least one anionic surfactant. The composition may further include nonionic, amphoteric, betaine, and cationic surfactants. The compositions are useful as shampooes, washes, baths, gels, lotions, creams, and the like.

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DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled Viscous, Mild, and Effective Cleansing Compositions, the specification of which

(check one) ☒ is attached hereto

☐ was filed on _____ as

Application Serial No _____

and was amended on _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56

I hereby claim foreign priority benefits under Title 35, United States Code, §119 (a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed

008180-4491460

Prior Foreign Application(s).

Country	Application Number	Date of Filing	Priority Claimed Under 35 U S C 119	
			☐ YES	☐ NO
			☐ YES	☐ NO
			☐ YES	☐ NO

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below

(Application Number)

(Filing Date)

(Application Number)

(Filing Date)

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1 56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application

Application Serial No

Filing Date

Status

Application Serial No

Filing Date

Status

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith as well as to file equivalent patent applications in countries foreign to the United States including the filing of international patent applications in accordance with the Patent Cooperation Treaty Audley A Ciamporcero, Jr (Reg #26,051), Steven P Berman (Reg #24,772), Andrea L Colby (Reg #30,194), Michael Stark (Reg #32,495), and Michele G Mangini (Reg #36,806) One Johnson & Johnson Plaza, New Brunswick, NJ 08933

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I hereby declare that all statements made herein of my own
knowledge are true and that all statements made on information
and belief are believed to be true; and further that these
statements were made with the knowledge that willful false
statements and the like so made are punishable by fine or
imprisonment, or both, under Section 1001 of Title 18 of the
United States Code and that such willful false statements may
jeopardize the validity of the application or any patent issued
thereon

Inventor's Signature
Full Name of Sole
or First Inventor

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Folio 89

2020
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JIMENA ESCOBAR URIBE
Apoderado(a)

Oficio No 08714

REFERENCIA	Radicación	01-67832
	Trámite	002
	Evento	001
	Actuación	430
	Folios	001

Como resultado del examen de forma, realizado con fundamento en el artículo 38 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica que

- Debe allegar copia del documento en que consta la cesión del derecho a la patente otorgado por el inventor al solicitante o a su causante (art. 26-k, Dec 486/2000)

En cumplimiento del artículo 39 de la Decisión 486, en concordancia con el artículo 85 de la misma decisión, se le requiere para que dentro del término de dos (2) 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 artículo 8 de la Resolución 210 del 15 de enero del 2001

ALIX CARMENZA CÉSPEDES DE VERGEL
Jefe de la División de Nuevas Creaciones

21 FEB 2002

El anterior requerimiento fue notificado por fijación en lista de fecha _____

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