ESCOBAR - URIBE ASOCIADOS

A B O G A D O S

Carrera 11A No. 94-76 Of. 305 - P.O. Box 9
Tels.: (571) 6162051 - 6162061 -
Fax: (571) 6161

2477/P

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES
E. S. D.

Ref.: Expediente No. 02.071.964
Solicitud de Patente a nombre de
Johnson & Johnson Consumer Companies, Inc.

Yo, JIMENA ESCOBAR URIBE, identificada como aparece al pie de mi firma, domiciliada en la Carrera 11 A No. 94-76, Of. 305, obrando como apoderada de la sociedad Johnson & Johnson Consumer Companies, Inc., domiciliada en Skillman, New Jersey, Estados Unidos de América, solicitante de la patente de la referencia, en respuesta a su oficio No. 14511 notificado por fijación en lista el día 5 de septiembre de 2002, me permito manifestar lo siguiente:

1. Anexo los documentos de cesión suscritos por los inventores a favor de mi mandante.

   De conformidad con las normas legales vigentes, artículo 1 de la Resolución 210 de 2001, expedida por el Superintendente de Industria y Comercio, los documentos en inglés que se pretendan aportar como parte de los trámites de propiedad industrial ante la Superintendencia de Industria y Comercio no requieren traducción. Por lo tanto, los documentos de cesión anexos a este memorial son válidamente presentados en idioma inglés y con la correspondiente Apostilla.

2. Acompaño al presente memorial la copia certificada de las solicitudes de Patente No. 09/931,703 y 09/954,335 presentadas en los Estados Unidos de América el día 16 de agosto de 2001 y el 17 de septiembre de 2001 respectivamente, con la debida traducción de lo pertinente, incluyendo el capítulo reivindicatorio.

   A este mismo respecto, debe tenerse en cuenta que en las copias certificadas 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.

Espero con esto haber dado cabal cumplimiento a lo solicitado por ese despacho.

Señor Superintendente,

JIMENA ESCOBAR URIBE
C.C.39.779.452 de usaquén
T.P. 68228

APOSTILLE

(CONVENTION DE LA HAYE DU 5 OCTOBRE 1961)

1. COUNTRY: UNITED STATES OF AMERICA

2. THIS PUBLIC DOCUMENT HAS BEEN SIGNED BY:
CHRISTINA A CLICKNER

3. ACTING IN THE CAPACITY OF:
NOTARY PUBLIC OF NEW JERSEY

4. BEARS THE SEAL/STAMP OF:
CHRISTINA A CLICKNER, NOTARY

CERTIFIED

5. AT TRENTON, NEW JERSEY

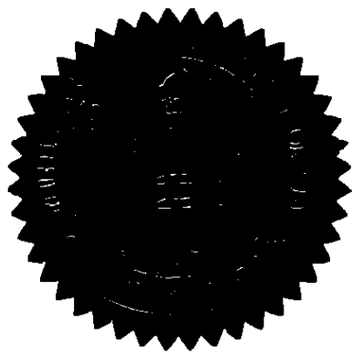
6. THE 18TH DAY OF SEPTEMBER 2002

7. BY: John E McCormac, CPA, NEW JERSEY TREASURER

8. NO. A158308

9. SEAL/STAMP:

10. SIGNATURE



JBP 561/568 COL(L)

CERTIFICATION

I hereby certify that I have compared the attached document with the original, and that such said document is a true copy of the original Assignment document as filed in the U.S. Patent Office in connection with USSN 09/954,335 filed SEPTEMBER 17, 2001.

Christina A. Clickner
(Notary Public of New Jersey)
My Commission Expires:
March 2, 2005

DOCKET NO. JBP-568
Joint Inventors

A S S I G N M E N T

Serial No. 09/954,335
Filed 17 September 2001

WHEREAS, Gregory BOOKER and Joseph J. LIBRIZZI, residing at 2613 Swain Street, Philadelphia, PA 19130; and 19 Norz Drive, Neshanic, NJ 08853; respectively (hereinafter called "Assignors"), have made certain new and useful inventions or discoveries relating to

MILD CLEANSING COMPOSITION HAVING STABLE FOAM

for which they have on the 17th day of September, 2001 filed an application for Letters Patent of the United States; and

WHEREAS, Johnson & Johnson Consumer Companies, Inc., a corporation of the State of New Jersey, (hereinafter called "Assignee"), is desirous of acquiring Assignors' entire right, title, and interest therein:

NOW, THEREFORE, BE IT KNOWN that for and in consideration of the sum of One Dollar and other valuable considerations to them moving, the receipt of which is hereby acknowledged, Assignors have sold, assigned, and transferred, and do hereby sell, assign and transfer unto said Assignee their entire right, title and interest in and to all said inventions and discoveries disclosed in said application whose identification above by serial number and filing date, when available is hereby authorized, and in and to said application, all substitutions, divisions, and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and t all extensions, renewals, and reissues thereof, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignors if this Assignment and sale had not been made;

And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

65

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this 4th day of December, 2001

Joseph J. LiBrizzi (L.S.)

STATE OF NEW JERSEY)
) ss.
COUNTY OF Somerset)

BE IT REMEMBERED, That on this 4th day of December, 2001, before me, a Notary Public, personally appeared Joseph J. Librizzi, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him the contents thereof, he did acknowledge that he signed, sealed, and delivered the same as his voluntary act and deed for the uses and purposes therein expressed.

Kevin F. Gerardi
Notary Public
attorney at law
member of the bar of the
State of New Jersey

And for the consideration aforesaid, Assignors covenant and agree with said Assignee that he has a full and unencumbered title to the inventions and discoveries above described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

And for the consideration aforesaid, Assignors further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, r assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it to rec rd said title.

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this 3rd day of December, 2001

Gregory Booker (L.S.)
Greogory BOOKER

STATE OF NEW JERSEY)
) ss.
COUNTY OF Somerset)

BE IT REMEMBERED, That on this 3rd day of December, 2001, before me, a Notary Public, personally appeared Gregory Booker, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him the contents thereof, he did acknowledge that he signed, sealed, and delivered the same as his voluntary act and deed for the uses and purposes therein expressed.

Kevin F Dennis
Notary Public
Attorney at Law
Member of the Bar of the
State of New Jersey

2477 67 67

APOSTILLE

(CONVENTION DE LA HAYE DU 5 OCTOBRE 1961)

1. COUNTRY: UNITED STATES OF AMERICA

2. THIS PUBLIC DOCUMENT HAS BEEN SIGNED BY:
CHRISTINA A CLICKNER

3. ACTING IN THE CAPACITY OF:
NOTARY PUBLIC OF NEW JERSEY

4. BEARS THE SEAL/STAMP OF:
CHRISTINA A CLICKNER, NOTARY

CERTIFIED

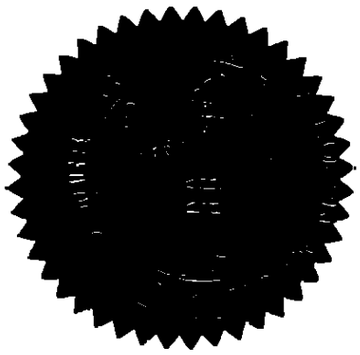
5. AT TRENTON, NEW JERSEY

6. THE 18TH DAY OF SEPTEMBER 2002

7. BY: John E McCormac, CPA, NEW JERSEY TREASURER

8. NO. A158309

9. SEAL/STAMP:



10. SIGNATURE

JBP 561/568 COL(L)

CERTIFICATION

I hereby certify that I have compared the attached document with the original, and that such said document is a true copy of the original Assignment document as filed in the U.S. Patent Office in connection with USSN 09/931,703 filed AUGUST 16, 2001.

Christina A. Clickner
(Notary Public of New Jersey)
My Commission Expires:
March 2, 2005

DOCKET NO. JBP-561
Joint Inventors

69

A S S I G N M E N T

Serial No. 09/931,703
Filed August 16, 2001

WHEREAS, Gregory BOOKER, Joseph LIBRIZZI and Delores SANTORA, residing at 2613 Swain Street, Philadelphia, PA 19130; 19 Norz Drive, Neshanic, NJ 08853; and 28 Ditmars Circle, Hillsborough, NJ 08844; respectively (hereinafter called "Assignors"), have made certain new and useful inventions r discoveries relating to

MOISTURIZING DETERGENT COMPOSITIONS

for which they have on the 16th day of August, 2001 filed an application for Letters Patent of the United States; and

WHEREAS, Johnson & Johnson Consumer Companies, Inc., a corporation of the State of New Jersey, (hereinafter called "Assignee"), is desirous of acquiring Assignors' entire right, title, and interest therein:

NOW, THEREFORE, BE IT KNOWN that for and in consideration of the sum of One Dollar and other valuable considerations to them moving, the receipt of which is hereby acknowledged, Assignors have sold, assigned, and transferred, and do hereby sell, assign and transfer unto said Assignee their entire right, title and interest in and to all said inventions and discoveries disclosed in said application whose identification above by serial number and filing date, when available is hereby authorized, and in and to said application, all substitutions, divisions, and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and t all extensions, renewals, and reissues thereof, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignors if this Assignment and sale had not been made;

And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

And for the consideration aforesaid, Assignors covenant and agree with said Assignee that he has a full and unencumbered title to the inventions and discoveries above described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

And for the consideration aforesaid, Assignors further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, or assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it t record said title.

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21

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this 29 day of October, 2001

Gregory Booker (L.S.)
Gregory Booker

STATE OF NEW JERSEY)
) ss.
COUNTY OF SOMERSET)

BE IT REMEMBERED, That on this 29th day of October, 2001, before me, a Notary Public, personally appeared Gregory Booker, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kevin F. Grande
Notary Public
attorney at law
Member of the Bar of the
State of New Jersey

72 72

IN TESTIMONY WHEREOF, Assignors have hereunt set their hands and seals this 6th day of November, 2001

_____ (L.S.)
Joseph Librizzi

STATE OF NEW JERSEY)
) ss.
COUNTY OF SOMERSET)

BE IT REMEMBERED, That on this 6th day f November, 2001, before me, a Notary Public, personally appeared Joseph Librizzi, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

SUSAN JANE KOCUR
NOTARY PUBLIC OF NEW JERSEY
Commission Expires 1/20/2005

_____
Notary Public

73
35

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this 29 day of October 2001

Delores Santora (L.S.)

STATE OF NEW JERSEY)
) ss.
COUNTY OF SOMERSET)

BE IT REMEMBERED, That on this ____ day f _____, 2001, before me, a Notary Public, personally appeared Delores Santora, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kevin F. Grande
Notary Public
attorney at law
member of the Bar of
the State of New Jersey

ESTADOS UNIDOS DE AMERICA
A TODOS AQUELLOS A QUIENES EL PRESENTE LLEGUE:

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

Agosto 14, 2002

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: 09/931,703

Fecha de Presentación: Agosto 16 de 2001

Por la autoridad del
Comisionado de Patentes y Marca

(fdo) T. WALLACE
Oficial Certificador
Sello oficial de la Oficina de Patentes y Marcas de los Estados Unidos de América

LO QUE SE REIVINDICA ES:

1) Una composición detergente humectante que incluye:
   a) Un polímero catiónico.
   b) Un emoliente seleccionado del grupo formado por un diester, un triester o una mezcla obtenida de ellos.
   c) Un emoliente monoester; y
   d) Un surfactante limpiador.

2) La composición de la reivindicación 1 que incluye, basado en el peso total de la composición:
   a) Desde 0.01% hasta 5% de un polímero catiónico;
   b) Desde 0.1% hasta 5% de un emoliente seleccionado del grupo formado por un diester, un triester, o una mezcla de ellos.
   c) Desde 0.1% hasta 5% de un emoliente monoester; y
   d) Desde 0.5% hasta 50% de un surfactante limpiador.

3) La composición de la reivindicación 1 que incluye, basado en el peso total de la composición:
   a) Desde 0.01% hasta 2% de un polímero catiónico;
   b) Desde 1% hasta 2.5% de un emoliente seleccionado del grupo formado por un diester, un triester, o una mezcla de ellos.
   c) Desde 0.5% hasta 3% de un emoliente monoester; y
   d) Desde 5% hasta 15% de un surfactante limpiador.

4) La composición de la reivindicación 1 donde el polímero catiónico se selecciona del grupo formado por polisacáridos catiónicos; homopolímeros catiónicos y copolímeros derivados de los ácidos acrílicos o metacrílicos; resinas de celulosa catiónicas; copolímeros catiónicos de

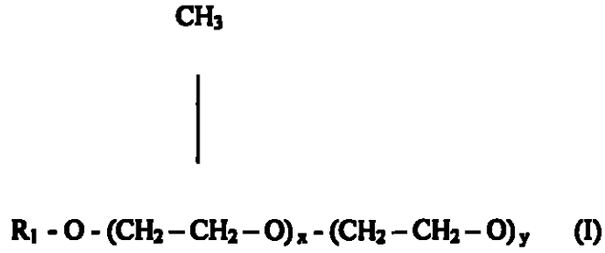
cloruro de dimetildialilamonio y acrilamidas y / o ácido arílico; homopolímeros catiónicos de cloruro de dimetildialilamonio; iminas de polialquileno catiónico y etoxipolialquileno; siliconas cuaternizadas y copolímeros y las mezclas obtenidas de ellos.

5) Las composiciones de la reivindicación 4 en donde el polímero catiónico es una goma de guar catiónicas, un éter de hidroxietil celulosa cuaternizada, un copolímero de acrilamida y de los éteres de cloruro de dimetildialilamonio, un copolímero de vinilpirrolidona y vinilpirrolidona ramificada cuaternizada, y los copolímeros y las mezclas obtenidas de ellos.

6) La composición de la reivindicación 5 en donde el polímero catiónico es cloruro de guar hidroxipropiltrimonio, policuaternio 10 y los copolímeros y las mezclas obtenidas de ellos.

7) La composición de la reivindicación 1 en donde el diester o el triester se obtienen de la reacción de un diester o triester reactante que se compone de dos o tres porciones alcoxiladas grasas, con un poliol o poliácido aromático, ramificado o lineal.

8) La composición de la reivindicación 7, en donde las porciones alcoxiladas grasas son representadas por la formula I.



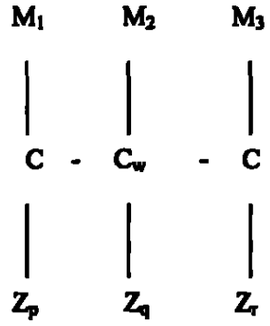
(I)

En donde:

R_1 es una porción grasa ya sea ramificada, lineal o aromática, sustituida o insustituida, saturada o insaturada con una cadena carbonada de una longitud desde 6 hasta 30 átomos; y

Cada x y y son independientemente cero o un entero desde 1 hasta 200, inclusive con la salvedad de que la suma de x y y en cada porción alcoxilada grasa, es independientemente entre 1 y 300, inclusive, y la suma de todos los x y y en el diester o triester no excede 800.

9) La composición de la reivindicación 7, en donde el poliol o poliácido aromático, ramificado o lineal, es como se establece en la estructura II:



(II)

En donde:

M_1, M_2, y M_3, son independientemente un hidroxi, dos hidrógenos con enlace sencillo o un oxigeno con doble enlace;

Z_p, Z_q, y Z_r son independientemente hidrógeno o un hidroxi;

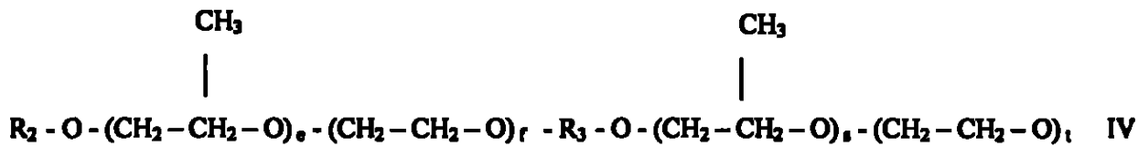
P, q y r son independientemente cero o uno, con la salvedad que la suma de p, q y r es como mínimo 2, y

W es cero o un entero entre 1 y 20, incluso.

10) La composición de la reivindicación 7, en donde el diester es Di- PPG – 2 Myreth – 10 Adipato.

11) La composición de la reivindicación 1, en donde el monoester resulta de la reacción de una porción ácida grasa que tiene una longitud de cadenas de carbonos de desde 4 átomos de carbono hasta 30 átomos de carbono, con un alcohol polihídrico o monohídrico.

12) La composición de la reivindicación 11, en donde el mono ester presenta una estructura establecida por la formula IV:



IV

En donde:

R_2 es una porción grasa ya sea ramificada, lineal o aromática, sustituida o insustituida, saturada o insaturada con una cadena carbonada de una longitud desde 4 hasta 30 átomos.

R_3 es un alcohol polihídrico o monohídrico ramificado, lineal o aromático, sustituido o insustituido, saturado o insaturado con una cadena carbonada de una longitud desde 3 hasta 30 átomos; y

Cada e, f, s y t son independientemente cero o entero desde 1 hasta 100 incluso, con la salvedad de que la suma de e y f es cero o un entero entre 1 y 200 inclusive, que la suma de s y t es cero o un entero entre 1 y 200, incluso, y que la suma de e, f, s y t no excede 400.

13)La composición de la reivindicación 12 en donde el mono ester es un ester de glicerilo.

14)La composición de la reivindicación 13, en donde el ester de glicerilo es seleccionado del grupo formado por oleato de glicerilo, PEG –7 cocoato de glicerilo y las mezclas de ellos.

15)La composición de la reivindicación 1, en donde el surfactante se selecciona del grupo formado por aniónicos, no iónicos, anfotéricos, betaínas o catiónicos, como también las mezclas de ellos.

16)La composición de la reivindicación 15, en donde el surfactante aniónico se selecciona del grupo formado por alquil sulfatos, alquil eter sulfatos, sulfosuccinatos, isetionatos, acilamidas, alquileter carboxilatos y alquil fosfatos, y las mezclas de ellos.

17)La composición de la reivindicación 15 en donde el surfactante no iónico se selecciona del grupo formado por ácidos grasos de alcoholes o etoxilatos de amida, etoxilatos de monoglicerida, etoxilatos de ester de sorbitán, alquil poliglicósidos, y las mezclas de ellos.

18)La composición de la reivindicación 15 en donde el surfactante anfotérico se selecciona del grupo formado por alquilimino – diproprionatos,

alquilanfoglicinatos (mono o di), alquilanfopropionatos (mono o di), alquilanfoacetatos (mono o di), ácido N-alquil β – aminoproprionico, carboxilato alquil poliamino, imidazolinas fosforiladas y las mezclas de ellos.

19) La composición de la reivindicación 15 en donde el surfactante de betaína se selecciona de grupo formado por alquil betaínas, alquilamino betaínas, alquil sultainas, alquilamido sultainas y las mezclas de ellas.

20) La composición de la reivindicación 15 en donde el surfactante catiónico se selecciona del grupo formado por mono alquil cuaternarios (mono, di o tri), bencil cuaternarios, ester cuaternario, etoxilados cuaternarios, alquil aminas, y las mezclas de ellos.

21) La composición de la reivindicación 15 en donde el surfactante se selecciona del grupo formado por cocoamidopropil betaína, lauroamfodiacetato disodio, lauret sulfato de sodio, decil glucosida, cocoglucosida, POE 80 monolaurato de sorbitan, y mezclas de ellos.

22) La composición de la reivindicación 1 en donde cada monoester, diester y triester poseen un valor de HLB menor que o igual a 11.

23) La composición de la reivindicación 22 en donde cada monoester, diester y triester poseen un valor de HLB mayor que o igual a 4 y menor que o igual a 11.

24) Un producto para el cuidado personal que incluye la composición de la reivindicación 1.

25) El producto de la reivindicación 24 en la forma de una loción, crema, gel, jabón, baño, crema espumosa, tónico o lavado.

26) Un método de utilización de la composición de la reivindicación 1 para impartir un residuo humectante sobre la piel después de que se ha retirado dicha composición de la piel.

27) Un kit que incluye:

a) La composición de la reivindicación 1; y
b) Un implemento de limpieza

28) El kit de la reivindicación 27 en donde el implemento de limpieza es una almohadilla.

29) Un removedor de maquillaje que incluye la composición de la reivindicación 1.

30) Una composición detergente humectante que incluye,, basado en el peso total de la composición:

a) Desde 0.01% hasta 5% de cloruro de guar hidroxipropiltrimonio y/o policuaternio 10
b) Desde 0.1% hasta 5% de di - PPG – 2 Myreth – 10 adipato.
c) Desde 0.1% hasta 5% de gliceril ester; y
d) Desde 0.5% hasta 50% de un surfactante limpiador.

31)La composición de la reivindicación 30 en donde el ester de glicerilo es seleccionado del grupo formado por oleato de glicerilo, PEG-7 cocoato de glicerilo, y mezclas de ellos.

32)Un producto para el cuidado personal que incluye la composición de la reivindicación 30

33)El producto de la reivindicación 32 en forma loción, crema, gel, jabón, baño, crema espumosa, tónico o lavado.

34)Un método de utilización de la composición de la reivindicación 30 para impartir un residuo humectante sobre la piel después de que se ha retirado dicha composición de la piel.

35)Un kit que incluye:

a) La composición de la reivindicación 1; y
b) Un implemento de limpieza

36)El kit de la reivindicación 35 en donde el implemento limpiador es una almohadilla.

37)Un removedor de maquillaje que incluye la composición de la reivindicación 30.

PA 082088

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

August 14, 2002

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: ***09/931,703***
FILING DATE: ***August 16, 2001***

By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

T. WALLACE
Certifying Officer

08/17/01

Please type a plus sign (+) inside this box [+]

UTILITY PATENT APPLICATION TRANSMITTAL

(only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	JBP-581
First Inventor	Gregory BOOKER et al.
Title	MOISTURIZING DETERGENT COMPOSITIONS
Express Mail Label No.	EL710605584US

APPLICATION ELEMENTS

See MPEP Chapter 600 concerning utility patent application contents.

ADDRESS TO: Commissioner for Patents
Box Patent Application
Washington, DC 20231

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.
3. ☒ Specification [Total Pages - 30]
(Preferred arrangement set forth below)
- Descriptive Title of the Invention
- Cross Reference to Related Applications
- Statement Regarding Fed sponsored R&D
- Reference to sequence listing, a table, or a computer program listing 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

4. ☐ Drawing(s)(*35 USC 113*) [Total Sheets]
5. Oath or Declaration [Total Pages - 3]
a. ☒ Unexecuted (copy)
b. ☐ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 18 completed)
i. ☐ 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).

6. ☐ Application Data Sheet. See 37 CFR 1.76

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)

8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
a. ☐ Computer Readable Form (CRF)
b. ☐ Specification Sequence Listing on:
i. ☐ CD-ROM or CD-R (2 copies); or
ii. ☐ paper
c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney
(when there is an assignee)
11. ☐ English Translation Document *(if applicable)*
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
16. ☐ Request and Certifications under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☒ Other (Express Mail Certificate)

18. ☐ If a CONTINUING APPLICATION, *check appropriate box and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:*
☐ Continuation ☐ Divisional ☐ Continuation-in-Part (CIP) of prior application No.: , filed .
Prior application information: Examiner Group Art Unit:
For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

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Please direct all telephone calls or telefaxes to Michele G. Mangini at:
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21. SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

NAME	Michele G. Mangini Reg. No. 36,806
SIGNATURE	
DATE	August 16, 2001

FEE TRANSMITTAL	Complete if Known	
	Application Number	
	Filing Date	
	First Named Inventor	Gregory BOOKER et al.
	Group Art Unit	
	Examiner Name	
	Attorney Docket Number	JBP-561

FEE CALCULATION

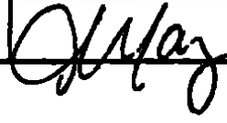
CLAIMS AS FILED

(1)	(2)	(3)	(4)	(5)
FOR:	NUMBER FILED	NUMBER EXTRA	RATE	BASIC FEE $710.00
TOTAL CLAIMS	37 - 20 =	17	x 18.00	$ 306.00
INDEPENDENT CLAIMS	2 - 3 =	0	x 80.00	$ 0
MULTIPLE DEPENDENT CLAIMS	☐	N/A	$270.00	$ 0
			TOTAL FEES	$1016.00

METHOD OF PAYMENT

☒ Please charge Deposit Account No. 10-0750/JBP-561/MGM in the amount of $1,016.00. Three copies of this sheet are enclosed.

☒ The Commissioner is hereby authorized to charge any additional fees which may be required in connection with the filing of this communication, or credit any overpayment, to Account No. 10-0750/JBP-561/MGM. Three copies of this sheet are enclosed.

SUBMITTED BY:			Complete (if applicable)
Typed or Printed Name	Michele G. Mangini		Reg. No. 36,806
Signature		Date: 8/16/01	Deposit Account No. 10-0750

86

FEE TRANSMITTAL	Complete if Known	
	Application Number	
	Filing Date	
	First Named Inventor	Gregory BOOKER et al.
	Group Art Unit	
	Examiner Name	
	Attorney Docket Number	JBP-561

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SUBMITTED BY:			Complete (if applicable)
Typed or Printed Name	Michele G. Mangini		Reg. No. 36,806
Signature		Date: 8/16/01	Deposit Account No. 10-0750

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87

89

DOCKET NO. JBP-561

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Applicant: Gregory BOOKER et al.

For : MOISTURIZING DETERGENT COMPOSITIONS

Express Mail Certificate

"Express Mail" mailing number: EL710605884US

Date of Deposit: August 16, 2001

09 31703 .08150I

I hereby certify that this complete application, including 30 specification pages with 37 claims, transmittal (2 pp.), and unexecuted Declaration and Power of Attorney, is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Box Patent Applications, Washington, D.C. 20231.

An executed Combined Declaration and Power of Attorney will be submitted to the United States Patent and Trademark Office upon receipt of the U.S. Serial Number for this patent application.

Karen Hall Morgan
(Typed or printed name of person mailing paper or fee)

Karen Hall Morgan
(Signature of person mailing paper or fee)

MOISTURIZING DETERGENT COMPOSITIONS

BACKGROUND OF THE INVENTION

1. Field Of The Invention

The present invention relates to a mild moisturizing detergent composition having superior cleansing and moisturizing performance as well as low skin and ocular irritancy effects.

2. Description Of The Prior Art

Historically, moisturizing cleansers have incorporated oils or silicones as the primary means for providing moisturization to hair and skin. See, e.g., U.S. Patent No. 5,085,857 (silicone gums); and U.S. Patent No. 6,194,364 (nonpolar oils or silicones in cleansing emulsion). However, because such ingredients tend to reduce the viscosity of the product and suppress its foamability, these moisturizing cleansers are not aesthetically preferred by customers.

One known method for overcoming these deleterious effects of the oils and silicones is to increase the concentration of the surfactants in the cleansing product. Although the resulting products possess the high foaming aesthetics preferred by customers, such products disadvantageously are not mild, do not effectively deposit the silicone and oil onto the skin, and further enhance the drying of the skin. Attempts have been made to overcome the detrimental effects of oils and silicones in a cleansing system by separating the oils and silicones from the cleansing system. See e.g., U.S. Patent No. 5,612,307. While this approach may minimize the aforementioned negative effects associated with oils and silicones, it created an additional need for a two compartment packaging, which is not only expensive but also complicated to manufacture.

Therefore, there is a need for a moisturizing detergent that not only provides superior skin moisturization, but also is capable being viscosified easily, provides consumer acceptable levels of foam, and does not require complicated packaging. There is further a need for such a moisturizing detergent that would not compromise the mildness and safety properties of the overall cleansing composition.

SUMMARY OF THE INVENTION

It has been discovered that the aforementioned objectives can be achieved by the *moisturizing detergent composition of the present invention comprising, consisting of, and/or* consisting essentially of:

a. a cationic polymer;

b. an emollient selected from the group consisting of a diester, a triester, or a mixture thereof;

c. a monoester emollient; and

d. a cleansing surfactant.

Another embodiment of the present invention is directed to a moisturizing detergent composition comprising, consisting of, and/or consisting essentially of , based upon the total weight of the composition,

a. from about 0.01 percent to about 5 percent of guar hydroxypropyltrimonium chloride *and/or* polyquaternium 10;

b. from about 0.1 percent to about 5 percent of di-PPG-2 myreth-10 adipate;

c. from about about 0.1 percent to about 5 percent of a glyceryl ester; and

d. from about 0.5 percent to about 50 percent a cleansing surfactant.

We have unexpectedly found that the moisturizing detergent compositions of the present invention not only provide superior skin cleansing and moisturization, but also are capable of viscosity building and foam boosting without compromising the mildness and safety properties of the overall cleansing composition.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

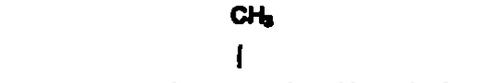
The moisturizing detergent composition of the present invention is comprised of, consists of, and/or consists essentially of, based upon the total weight of the composition, *from about 0.01 percent to about 5 percent, e.g. from about 0.01 percent to about 3 percent* or from about 0.01 percent to about 2 percent of a cationic polymer; from about 0.1 percent to about 5 percent, e.g. from about 0.5 percent to about 3 percent, or from about 0.1 percent to about 2.5 percent of an emollient selected from the group consisting of a diester, a triester, or a mixture thereof; from about 0.1 percent to about 10 percent, e.g. from about 0.5 percent to about 5 percent or from about 0.75 percent to about 3 percent of a monoester emollient; and from about 0.5 percent to about 50 percent, e.g. from about 5 percent to about 15 percent, *of a cleansing surfactant.*

Cationic polymers that are suitable for use in the composition of the present invention include, but are not limited to those having a high molecular weight ranging from about 2,000 to about 5,000,000, e.g. from about 5,000 to about 3,000,000 or from about 100,000 to about 1,000,000.

Representative classes of suitable cationic polymers include, but are not limited to cationic polysaccharides; cationic homopolymers and copolymers derived from acrylic and or methacrylic acid; cationic cellulose resins; cationic copolymers of dimethyldiallylammonium chloride and acrylamide and/or acrylic acid; cationic homopolymers of dimethyldiallylammonium chloride; cationic polyalkylene and ethoxypolyalkylene imines; quaternized silicones and copolymers and mixtures thereof.

For example, such cationic polymers include the cationic guar gums such as guar hydroxypropyltrimonium chloride, which is commercially available from Rhodia Incorporated, under the tradename, "Jaguar C17;" quaternized hydroxy ethyl cellulose ethers, which are commercially available from Amerchol Corporation under the tradename, "Ucare Polymer JR 400;" copolymers of acrylamide and dimethyldiallylammonium chloride ethers, which are also known as polyquaternium 7 and are commercially available from the McIntyre Group Ltd. under the tradename, "Mackernium 007" or from Allied Colloids under the tradename "Salcare SC10;" copolymers of vinylpyrrolidone and quaternized branched vinylpyrrolidone, which are commercially available from BASF Corporation under the tradename, "Luviquat Care;" Polyquaternium-6, which is available commercially from Allied Colloids under the tradename, "Salcare SC30;" and copolymers and mixtures thereof.

Diester or triester emollients suitable for use in the present invention may be made via the known reaction of fatty alkoxylated esters with a straight, branched or aromatic polyol or poly acid to form a diester or triester of a straight, branched or aromatic polyol or poly acid. The diester or triester reactant is comprised of two or three fatty alkoxylated moieties, respectively, having the structure set forth in formula I.:



$$R_1\text{-}O\text{-}(CH_2\text{-}CH_2\text{-}O)_x\text{-}(CH_2\text{-}CH\text{-}O)_y \qquad (I.)$$

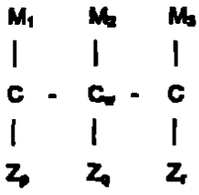
wherein:

R_1 is a saturated or unsaturated, substituted or unsubstituted, straight, branched, or aromatic fatty moiety having a carbon chain length of from about 6 to about 30 atoms; and

Each x and y are independently zero or an integer from 1 to 200, inclusive, with the proviso that the sum of x and y in each fatty alkoxylated moiety is independently between 1

and 300, inclusive, and the sum of all xs and ys in the diester or triester does not exceed 800.

The straight, branched, or aromatic polyol or polyacid is of the formula set forth in structure II.:



II.

Wherein:

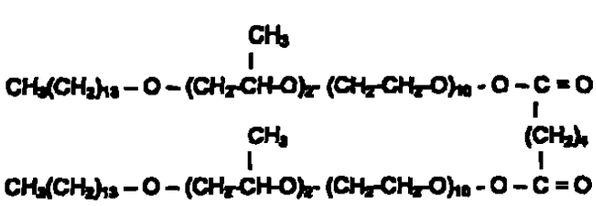
M_1, M_2, and M_3 are independently a hydroxy, two single bonded hydrogens, or a double bonded oxygen;

Z_p, Z_q, and Z_r are independently hydrogen or a hydroxy;

p, q, and r are independently zero or one, with the proviso that the sum of p + q + r is at least 2; and

w is zero or an integer between 1 and 20, inclusive.

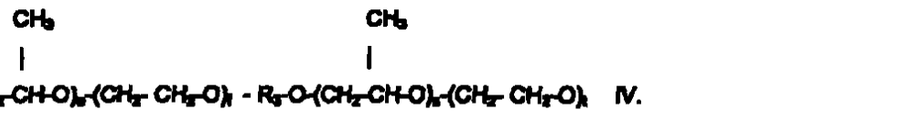
One suitable diester is Di-PPG-2 Myreth-10 Adipate, which is commercially available from Croda, Incorporated under the tradename, "Cromollient SCE," and has the structure set forth in formula III.:



III.

Monoester emollients suitable for use in the present invention include the esters made via the known reaction of a straight, branched or aromatic fatty acid having from about 4 carbon atoms to about 30 carbon atoms with a straight, branched or aromatic monohydric or polyhydric alcohol. If desired, the monohydric or polyhydric alcohol may be alkoxylated

using known methods to improve its water solubility. The resulting monoester is of the structure set forth in formula IV.:



Wherein:

R_2 is a saturated or unsaturated, substituted or unsubstituted straight, branched, or aromatic fatty moiety having a carbon chain length of from about 4 to about 30 atoms;

R_3 is a saturated or unsaturated, substituted or unsubstituted, straight, branched, or aromatic monohydric or polyhydric alcohol having a carbon chain length from about 3 atoms to about 30 atoms; and

Each e, f, s, and t are independently zero or integers from 1 to 100, inclusive, with the provisos that the sum of e and f is zero or an integer between 1 and 200, inclusive, that the sum of s and t is zero or an integer between 1 and 200, inclusive, and that the sum of e, f, s, and t does not exceed 400.

Examples of monoesters suitable for use in the present invention include the glyceryl esters, such as glyceryl oleate, which is commercially available from the Goldschmidt Chemical Corporation under the tradename, "Tegin O;" PEG-7 Glyceryl Cocoate, which is commercially available from Croda Incorporated under the tradename, "Glycerox HE;" and mixtures thereof.

In one embodiment, the HLB value of one or more of the di-/tri-ester emollients and monoester emollients is less than about 11, e.g. from about 2 to about 11 or from about 4 to about 11. In another embodiment, all of the di-/tri-ester emollients and the monoester emollients have an HLB value of less than about 11, e.g. from about 2 to about 11 or from about 4 to about 11.

Surfactants suitable for use in the present invention include those which are anionic, nonionic, amphoteric, betaine, or cationic, as well as mixtures thereof.

Classes of anionic surfactants useful in this invention include the alkyl sulfates, alkyl ether sulfates, sulfosuccinates, isethionates, 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.

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.

Classes of amphoteric surfactants that are suitable for use in this invention include alkyliminо-dipropionates, alkylamphoglycinates (mono or di), alkylamphopropionates (mono or di), alkylamphoacetates (mono or di), N-alkyl β-aminoproprionic acids, alkylpolyamino carboxylates, and phosphorylated imidazolines.

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.

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 6 carbon atoms to about 30 carbon atoms, with about 8 to about 22 carbon atoms being preferred.

The moisturizing cleanser compositions of the present invention may also include one or more optional ingredients nonexclusively including a pearlescent or opacifying agent, a thickening agent, humectants, chelating agents, and additives 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 and/or which tend to indicate to consumers that the resultant product is a moisturizing cleanser 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: $HO-(JO)_a-H$, wherein J is an alkylene group having from about 2 to about 3 carbon atoms; and a 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 15 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 15: 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 acids and glycerine; hydroxyalkyl cellulose; alkyl cellulose; hydroxyalkyl alkyl cellulose; 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 Comiel, S.p.A. of Bologna, Italy under the tradename, "PEG 6000 DS".

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: $HO-(R''O)_b-H$, 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 $CH_3-C_6H_{10}O_5-$

$(OCH_2CH_2)_c$-OH, wherein c is an integer from about 5 to about 25; 4) urea; and 5) mixtures thereof, with glycerine being the preferred humectant.

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

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 2.0 percent, and preferably from about 0.05 percent to about 0.10 percent.

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

In one embodiment, the composition may be incorporated into a bath fizz ball, such as those described in U.S. Patent Nos. 4,650,661; 4,666,707; and 4,002,758; which are incorporated herein by reference.

The composition of the present invention may be used on the body in conjunction with any personal cleansing implement known in the art such as a washcloth, a mesh or apertured film, pouf, sponge, brush and the like. In one embodiment, the composition may be marketed together with one or more of such implements in a kit.

In one embodiment, the compositions of the present invention are "substantially free" of oils or silicones. As used herein, "substantially free" shall mean that the moisturizing cleanser composition contains, based upon the total weight of the composition, less than about 1 percent, for example, less than about 0.5 percent or less than about 0.2 percent oils and/or silicones.

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.

EXAMPLES

Example 1: Preparation of Moisturizing Detergent Composition

The moisturizing detergent composition of Example 1 was prepared according to the materials and amounts listed in Table 1.:

Table 1

Tradename / Supplier	INCI Name	%w/w
Plantaren 2000 from Cognis Corporation	Decyl Glucoside	0.8
Lamesoft P065 from Cognis Corporation		3.00
	Water	1.05
	Coco glucoside	1.05
	Glyceryl oleate	0.9
PEG 6000 DS from Stepan Company	PEG 150 distearate	1.4
Atlas G4280 from Uniqema	POE 80 sorbitan laurate	5.0
Water	Deionized water	59.67
Polymer JR from Amerchol Corporation	Polyquaternium 10	0.12
Glucquat 125 from Amerchol Corporation	Lauryl methyl gluceth-10 hydroxypropyldimonium chloride	1.00
Tegobetaine L-7 (30%) from Goldschmidt Chemical Corporation	Cocamidopropyl betaine	12.00
Monateric 949J from Uniqema	Disodium lauroamphodiacetate	2.00
Polyox WSR-205 from Amerchol Corporation	PEG 14-M	0.10
Glycerin from Cognis Corporation	Glycerin	0.50
Cromollient SCE from Croda Inc.	Di-PPG-Myreth-10-Adipate	1.00
Lipovol J from Lipo Chemicals, Inc.	Jojoba oil	0.1
Drakeol 7 from Penraco	Mineral oil	0.10
Fragrance	Fragrance	0.50
Dowicil 200 from Dow Chemical Company	Quaternium 15	0.05
Versene 100XL from Dow Chemical	Tetrasodium EDTA	0.46

Company		
Euperlan PK 3000 from Cognis Corporation		2.00
	Cocamidopropyl betaine	
	Glycol distearate	
	Laureth-4	
Citric acid (20%)	Citric acid	As needed

The composition of Example 1 was prepared as follows:

The following Pre-Mixtures were prepared:

Pre-Mixture 1: PEG-14M and glycerin were mixed in an independent container under ambient conditions.

Pre-Mixture 2: DI-PPG-2-myreth-10-adipate, mineral oil, and jojoba oil were mixed in an independent container under ambient conditions.

Pre Mixture 3: The fragrance and 1 part of POE-80 sorbitan laurate were mixed in an independent container under ambient conditions.

Component amounts in this procedure are given in terms of parts by weight of active to prepare 100 parts of the cleansing composition.

The decyl glucoside, cocoglucoside, and glyceryl oleate were mixed in an independent container under ambient conditions until the resulting solution was clear. The solution was then heated to a temperature of about 50 °C to 55 °C with constant stirring. PEG 150 distearate was added thereto with stirring at constant temperature until the PEG 150 distearate was dissolved therein. As the resulting solution was cooled to 40° C, the following components were added thereto sequentially with stirring, and the solution was homogeneous before the addition of each subsequent component: (4 parts) POE-80 sorbitan laurate; (59.67 parts) water; polyquaternium-10; lauryl methyl glucath-10 hydroxypropyldimonium chloride; cocamidopropylbetaine; disodium lauroamphodiacetate; PEG-14M/glycerin pre-mix; and DI-PPG-2-myreth-10-adipate/mineral oil/jojoba oil pre-mix.

After the resulting mixture was cooled to a temperature of about 40° C, the following components were added thereto sequentially, and the solution was homogeneous before the addition of each subsequent component: fragrance/POE-80 sorbitan laurate premixture, quaternium-15, tetrasodium EDTA, glycol distearate, and laureth - 4. After sodium chloride was added thereto, the pH of the resulting solution was adjusted with citric acid to about 6.8.

The remaining water was added thereto with stirring until the final solution was homogeneous.

The viscosity of the resulting solution was 1300 cps as measured by a Brookfield DV-I+ Viscometer using a # 2 spindle and speed of 6 rpm.

5

Example 2: *Preparation of Moisturizing Detergent Composition*

The moisturizing detergent composition of Example 2 was prepared according to the materials and amounts listed in Table 2.:

Table 2

Tradename / Supplier	INCI Name	%w/w
Lamesoft P065		3.00
	Water	1.05
	Coco glucoside	1.05
	Glyceryl oleate	0.9
PEG 6000 DS	PEG 150 distearate	1.0
Atlas G4280	POE 80 sorbitan laurate	5.0
Water	Deionized water	65.69
Polymer JR	Polyquaternium 10	0.10
Glucquat 125	Lauryl methyl gluceth-10 hydroxypropyldimonium chloride	1.00
Tegobetaine L-7 (30%)	Cocamidopropyl betaine	8.00
Monateric 949J	Disodium lauroamphodiacetate	2.00
Polyox WSR-205	PEG 14-M	0.05
Glycerin	Glycerin	0.50
Cromollient SCE	DI-PPG-Myreth-10-Adipate	1.00
Jaguar C17 from Rhodia, Inc	Guar hydroxypropyltrimonium chloride	0.1
Dowicil 200	Quaternium 15	0.05
Versene 100XL	Tetrasodium EDTA	0.508
Rhodapex from Rhodia, Inc.	Sodium Laureth-2 Sulfate	10.00
Euperlan PK 3000		2.00
	Cocamidopropyl betaine	
	Glycol distearate	

	Laureth-4	
Sodium hydroxide solution (20%)	Sodium hydroxide	As needed
Citric acid (20%) solution	Citric acid	As needed

The composition of Example 2 was prepared as follows:

The following Pre-Mixtures were prepared:

Pre-Mixture 1: PEG-14M and glycerin were mixed in an independent container under ambient conditions.

Component amounts in this procedure are given in terms of parts by weight of active to prepare 100 parts of the cleansing composition.

Guar hydroxypropyltrimonium chloride and polyquaternium 10 were added to a beaker containing (65.59 parts) water with stirring under ambient conditions until dissolved. After heating the solution to 50° C, PEG 150 distearate was stirred therein at constant heat until dissolved. As the resulting solution was cooled to 40 °C, the lauryl methyl gluceth-10 hydroxypropyldimonium chloride was added thereto with mixing until homogeneous. The following components were then added thereto sequentially with stirring, and the solution was homogeneous before the addition of each subsequent component: POE-80 sorbitan laurate; cocamidopropylbetaine; disodium lauroamphodiacetate; sodium laureth-2 sulfate; coco glucoside and glyceryl oleate; DI-PPG-2-myreth-10-adipate; and PEG-14M/glycerin pre-mix.

After the resulting mixture was cooled to a temperature of about 40 °C, the following components were added thereto sequentially, and the solution was homogeneous before the addition of each subsequent component: quaternium-15, tetrasodium EDTA, glycol distearate and laureth - 4. The pH of the resulting solution was adjusted with citric acid and sodium hydroxide to about 6.25 to about 7.25. The remaining water was added thereto with stirring until the final solution was homogeneous.

The viscosity of the resulting solution was 18,500 cps as measured by a Brookfield DV-I+ Viscometer using a # 2 spindle and speed of 1.5 rpm.

Example 3: *Preparation of Moisturizing Detergent Composition*

The moisturizing detergent composition of Example 3 was prepared according to the materials and amounts listed in Table 3.:

Table 3

Tradename / Supplier	INCI Name	%w/w
Plantaren 2000	Decyl Glucoside	6.00
Glycerox HE from Croda Inc.	PEG 7 glyceryl cocoate (having HLB of 10.6)	1.00
PEG 6000 DS	PEG 150 distearate	1.4
Atlas G4280	POE 80 sorbitan laurate	5.0
Water	Deionized water	61.67
Polymer JR	Polyquaternium 10	0.12
Glucquat 125	Lauryl methyl gluceth-10 hydroxypropyldimonium chloride	1.00
Tegobetaine L-7 (30%)	Cocamidopropyl betaine	12.00
Monateric 949J	Disodium laurbamphodiacetate	2.00
Polyox WSR-205	PEG 14-M	0.10
Glycerin	Glycerin	0.50
Cromollient SCE	DI-PPG-Myreth-10-Adipate	1.00
Lipovol J	Jojoba oil	0.1
Drakeol 7	Mineral oil	0.10
Fragrance	Fragrance	0.50
Dowicil 200	Quaternium 15	0.05
Versene 100XL	Tetrasodium EDTA	0.46
Euperlan PK 3000		2.00
	Cocamidopropyl betaine	
	Glycol distearate	
	Laureth-4	
Sodium chloride	Sodium chloride salt	5.00
Citric acid (20%)	Citric acid	As needed

The composition of Example 3 was prepared as follows:

The following Pre-Mixtures were prepared:

Pre-Mixture 1: 4 parts POE 80 sorbitan laurate, decyl glucoside, and PEG 7 glyceryl cocoate were mixed in an independent container under ambient conditions until clear.

Pre-Mixture 2: DI-PPG-2-myreth-10-adipate, mineral oil, and jojoba oil were mixed in an independent container under ambient conditions.

Pre Mixture 3: The fragrance and 1 part of POE-80 sorbitan laurate were mixed in an independent container under ambient conditions.

Pre-Mixture 4: The PEG 14M and glycerin were mixed in an independent container under ambient conditions.

Component amounts in this procedure are given in terms of parts by weight of active to prepare 100 parts of the cleansing composition.

After heating the pre-mixture 1 to a temperature of about 50° C to 55° C with constant stirring, PEG 150 distearate was added thereto with stirring at constant temperature until the PEG 150 distearate was dissolved therein. After the resulting solution was removed from the heat, the following components were added thereto sequentially with stirring, and the solution was homogeneous before the addition of each subsequent component: (61.67 parts) water; polyquaternium-10; lauryl methyl gluceth-10 hydroxypropyldimonium chloride; cocamidopropylbetaine; disodium lauroamphodiacetate; PEG-14M/glycerin pre-mix; and DI-PPG-2-myreth-10-adipate/mineral oil/jojoba oil pre-mix.

After the resulting mixture was cooled to a temperature of about 40 °C, the following components were added thereto sequentially, and the solution was homogeneous before the addition of each subsequent component: fragrance/POE-80 sorbitan laurate premixture, quaternium-15, tetrasodium EDTA, and glycol distearate/ laureth - 4 mixture. After sodium chloride was added thereto, the pH of the resulting solution was adjusted with citric acid to about 6.8. The remaining water was added thereto with stirring until the final solution was homogeneous.

The viscosity of the resulting solution was 405 cps as measured by a Brookfield DV-I+ Viscometer using a # 2 spindle and speed of 6 rpm.

Example 4: Preparation of Moisturizing Detergent Composition

The moisturizing detergent composition of Example 4 was prepared in accordance with the procedure set forth in Example 3 using the materials and amounts listed in Table 3, with the exception that the "Glycerox HE" was substituted with an equivalent amount of PEG

6 caprylic/capric glycerides, which is commercially available from Croda Incorporated_ under the tradename, "Glycerox 767" and has an HLB value of 13.2.

The viscosity of the resulting solution was 145 cps as measured by a Brookfield DV-I+ Viscometer using a # 2 spindle and speed of 6 rpm.

Example 5:: Comparison of Moisturizing Deterrent Composition With Commercial Products

Three hundred female consumer panelists who have previously used moisturizing cleanser compositions participated in a blind comparative study between the composition produced in accordance with Example 2, as well as five other commercially available cleansers: 1) "Cetaphil_Gentle Skin Cleanse available from Galderma Laboratories, Incorporated; 2) "Aveeno Baby Cleanser" available from Johnson & Johnson Consumer Companies, Inc., 3) "Purpose Gentle Cleansing Wash" available from Johnson & Johnson Consumer Companies, Inc., 4) "Oil of Olay Sensitive Skin Foaming Facial Wash" available from the Procter and Gamble Company; and 5) "RoC Enydrial Foaming Gel" available from Johnson & Johnson Consumer Companies, Inc., .

During the study, the panelists were divided into six groups of 50 participants. Each group was assigned one of the six above mentioned products, then asked to wash their faces with that product at least 5 times a week for a total of 2 weeks. At the end of the study, each panelist completed a questionnaire regarding the benefits of using the product. The results of the questionnaires are set forth in Tables 4, 5, and 6 below:

Table 4 Key Directionals From Panelist Questionnaires

	NON-FOAMING		FOAMING			
	Cetaphil (A)	Aveeno Baby Cleanser (B)	Moisturizing Cleanser of Rx 2 (C)	Purpose Gentle Cleansing Wash (D)	Oil of Olay Foaming Face Wash (E)	ROC Enderm Foaming Gel (F)
KEY DIRECTIONALS ON QUESTIONNAIRE:						
CONSISTENCY - "Just About Right"	36%	60%A	86%A*Bd**	72%A	78%Ab	76%Ab
AMOUNT OF LATHER - 11 pt	2.96	3.50	6.70ABE	6.10AB	5.68AB	6.58ABe
AMOUNT OF LATHER - "Just About Right"	32%	42%	72%ABd	54%A	66%AB	62%AB
LATHER CONSISTENCY - 10 pt	n/a	n/a	6.80DEF	5.50	5.52	5.48
LIKING OF LATHER CONSISTENCY - 5pt	n/a	n/a	4.06d	3.52	3.68	3.66
LATHER TEXTURE - 10 pt	n/a	n/a	7.04D	6.20	6.66	6.50
LIKING OF LATHER TEXTURE - 5 pt	n/a	n/a	3.94	3.62	3.66	3.76
EASE OF RINSING - 5 pt	4.14	4.20	4.38	4.20	4.16	4.04
EASE OF WIPING - 5 pt	4.20	4.20	n/a	n/a	n/a	n/a
MOISTURIZED SKIN FEEL AFTER USE Very Moisturized Somewhat Moisturized Not at All Moisturized	48%D 44% 8%	36% 54% 10%	40% 50% 10%	26% 60% 14%	36% 56% 8%	42%d 46% 12%
DRY/TIGHT SKIN FEEL AFTER USE Very Dry or Tight Somewhat Dry or Tight Not At All Dry or Tight	0% 12% 88%cDe	2% 6% 92%CDEf	4% 22%B 74%	4% 28%AB 68%	4% 20%B 74%	2% 20%B 78%

Table 4 (cont.)

	NON-FOAMING		FOAMING			
	Cetaphil (A)	Aveeno Baby Cleanser (B)	Moisturizing Cleanser of Ex 2 (C)	Purpose Gentle Cleansing Wash (D)	Oil of Olay Foaming Face Wash (E)	ROC Enbrid Foaming Gel (F)
CLEANSER USED TO REMOVE MAKEUP						
Yes	80%a	78%a	74%	74%	62%	72%
No	20%	22%	26%	26%	38%ab	28%
REMOVING MAKEUP - 10 pt	7.38	6.97	8.51ABE	8.03B	7.58	8.42ABe
	(n=40)	(n=39)	(n=37)	(n=37)	(n=31)	(n=36)
EASE OF REMOVING MAKEUP -10 pt	7.55	7.00	8.34AB	8.05b	7.84	8.42aB

Table 5: Panelists "Agree Completely/Somewhat" With Listed Benefits

	NON-FOAMING		FOAMING			
	Cetaphil (A)	Aveeno Baby Cleanser (B)	Moisturizing Cleanser of Ex. 2 (C)	Purpose Gentle Cleansing Wash (D)	Oil of Olay Foaming Face Wash (E)	ROC Retinol Foaming Gel (F)
AGREE COMPLETELY/SOMEWHAT - Top 2 Box						
END BENEFITS:						
Is an Effective Cleanser	78%	74%	. 94%ABc	90%B	82%	92%aB
Cleans & Moisturizes At The Same Time	78%	78%	92%	78%	80%	84%
Cleans Without Drying Skin	86%	88%	90%	80%	88%	86%
Leaves Skin Soft & Smooth	84%	80%	88%	84%	84%	88%
Does Not Clog Pores	72%	80%	92%AbF	82%	82%	72%
Helps Skin Look & Feel Healthier	72%	74%	94%ABDEF	78%	80%	74%
Helps to Even Out Blotchy & Uneven Skin Tone	34%	54%	60%A	52%a	50%	48%
Leaves Skin Feeling Clean	76%	72%	96%ABe	92%AB	86%b	92%AB
Leaves Skin Feeling Refreshed	76%	72%	92%ABe	84%	80%	82%
Helps Unclog Pores	52%	58%	78%ABdef	62%	60%	60%
Smoothes Rough, Uneven Patches	44%	48%	70%ABDE	50%	48%	64%A
Helps to Improve Skin Texture	54%	60%	84%ABDE	66%	62%	72%a
Provides Long Lasting Moisture	66%	64%	82%aBd	66%	76%	72%
Soothes Dry Skin	72%	64%	84%BD	66%	76%	82%Bd
Adds Moisture Back to The Skin	68%	64%	88%AB	74%	74%	78%
AMONG WOMEN WHO USED THE PRODUCT TO REMOVE MAKEUP:	(n=40)	(n=39)	(n=27)	(n=37)	(n=31)	(n=36)
Removes Makeup & Cleanses in One Step	80%	77%	100%ABDE	86%	87%	94%aB
Removes Foundation or Base Makeup	88%	85%	97%bd	86%	90%	89%
Removes Eye Makeup	70%	69%	78%	76%	81%	83%

Table 5 (cont.)

	NON-FOAMING		FOAMING			
	Cetaphil (A)	Aveeno Baby Cleanser (B)	Moisturizing Cleanser of Ex. 2 (C)	Purpose Gentle Cleansing Wash (D)	Oil of Olay Foaming Face Wash (E)	ROC Retinol Foaming Gel (F)
AGREE COMPLETELY/SOMEWHAT - Top 2 Box						
PRODUCT CHARACTERISTICS:						
Is Good for Even Very Dry Skin	84%d	80%	82%	70%	78%	84%d
Is a Product for Someone Like Me	60%	70%	86%Abf	78%a	78%a	72%
Is Not Irritating to Your Skin	90%	92%	98%adf	90%	92%	88%
Is Good for Use Everyday	94%	90%	90%Ac	90%	86%	90%
Is Pleasant to Use	66%	78%	90%AF	88%Af	88%Af	70%
Has A Good Consistency or Thickness	36%	62%A	86%ABf	80%Ab	80%Ab	72%A
Is Not Irritating to Eyes	80%	92%af	96%ADEF	84%	84%	78%
Rinses Off Easily & Completely	86%	82%	96%aBEF	88%	84%	78%
Leaves No Unpleasant Residue On Skin	82%	80%	96%ABE	94%aBE	76%	88%
Is Good For Sensitive Skin	78%	70%	88%Bd	74%	82%	82%
Gentle to Skin	92%	92%	98%E	90%	84%	90%
Moisturizes Better Than Other Cleansers	62%	60%	84%ABDef	62%	68%	70%
Is a High Quality Product	60%	64%	88%ABdF	74%	76%a	68%
Is Fragrance Free	86%cDEF	76%D	72%d	54%	68%	64%
Wipes Off Easily & Completely	82%	84%	n/a	n/a	n/a	n/a

Table 5 (cont.)

	NON-FOAMING		FOAMING			
	Cetaphil (A)	Aveeno Baby Cleanser (B)	Moisturizing Cleanser of Ex. 2 (C)	Purpose Gentle Cleansing Wash (D)	Oil of Olay Foaming Face Wash (E)	ROC Retinol Foaming Gel (F)
AGREE COMPLETELY/SOMEWHAT - Top Box						
END BENEFITS:						
Is An Effective Cleanser	48%	44%	74%ABEf	60%	54%	56%
Cleans & Moisturizes At The Same Time	36%	46%	66%BE	50%	46%	50%
Cleans Without Drying Skin	56%	56%	62%	50%	54%	50%
Leaves Skin Soft & Smooth	58%	50%	60%	48%	58%	58%
Does Not Clog Pores	42%	40%	64%ABF	50%	54%	44%
Helps Skin Look & Feel Healthier	28%	40%	64%ABD	42%	54%A	50%A
Helps to Even Out Blotchy & Uneven Skin Tone	16%	24%a	22%	16%	22%	20%
Leaves Skin Feeling Clean	44%	44%	76%ABef	64%AB	60%	60%
Leaves Skin Feeling Refreshed	48%	46%	70%ABD	50%	54%	54%
Helps Unclog Pores	18%	32%	40%Ad	22%	28%	36%A
Smoothes Rough, Uneven Patches	12%	20%	38%Abe	24%	20%	30%A
Helps to Improve Skin Texture	22%	30%	46%Ad	28%	34%	44%Ad
Provides Long Lasting Moisture	30%	30%	46%	38%	42%	40%
Soothes Dry Skin	28%	38%	48%A	44a%	38%	44%a
Adds Moisture Back to The Skin	22%	38a%	52%	40a%	38a%	46%A
AMONG WOMEN WHO USED THIS PRODUCT TO REMOVE MAKEUP-	(n=40)	(n=39)	(n=37)	(n=37)	(n=31)	(n=36)
Removes Makeup & Cleanses in One Step	48%	38%	70%AB	57%	55%	56%a
Removes Foundation or Base Makeup	55%B	31%	68%B	59%B	61%B	56%B
Removes Eye Makeup	50%b	28%	54%B	49%b	45%	50%b

Table 3 (cont.)

	NON-FOAMING		FOAMING			
	Cetaphil (A)	Aveeno Baby Cleanser (B)	Moisturizing Cleanser of Ex. 2 (C)	Purpose Gentle Cleansing Wash (D)	Oil of Olay Foaming Face Wash (E)	ROC Retinol Foaming Gel (F)
AGREE COMPLETELY/SOMEWHAT - Top Box						
PRODUCT CHARACTERISTICS:						
Is Good for Even Very Dry Skin	42%	42%	56%D	34%	40%	44%
Is a Product for Someone Like Me	36%	42%	62%ABD	36%	46%	46%
Is Not Irritating to Your Skin	74%	62%	74%	72%	72%	62%
Is Good for Use Everyday	66%	62%	74%f	74%f	62%	58%
Is Pleasant to Use	40%	32%	56%f	54%	58%eF	38%
Has A Good Consistency or Thickness	18%	30%	62%ABD	18%A	46%A	46%A
Is Not Irritating to Eyes	46%	58%	66%Af	44%Af	54%	50%
Rinses Off Easily & Completely	58%	48%	66%h	66%ih	58%	52%
Leaves No Unpleasant Residue On Skin	40%	52%	78%eBEF	70%bF	54%	50%
Is Good For Sensitive Skin	38%	38%	62%AB	50%	50%	48%
Gentle to Skin	48%	50%	72%ABE	60%	62%	50%
Moisturizes Better Than Other Cleansers	30%	28%	42%	28%	28%	34%
Is a High Quality Product	26%	36%	34%Ab	40%	42%a	40%
Is Fragrance Free	56%d	46%	44%	38%	44%	44%
Wipes Off Easily & Completely	54%	42%	n/a	n/a	n/a	n/a

Table A: Comparison to Brand Used Most Often

	NON-FOAMING		FOAMING			
	Cetaphil (A)	Aveeno Baby Cleanser (B)	Moisturizing Cleanser of Ex 2 (C)	Purpose Gentle Cleansing Wash (D)	Oil of Olay Foaming Face Wash (E)	ROC Bridal Foaming Gel (F)
COMPARED TO BRAND USED MOST OFTEN.						
LEAVING SKIN SOFT & SMOOTH - 5 pt	3.42d	3.22	3.54D	3.08	3.34	3.34
PROVIDING LONG LASTING MOISTURIZATION - 5 PT	3 24	3.20	3.56bD	3.04	3.32	3.34
LEAVING SKIN FEELING CLEAN - 5 pt	3.08	2.92	3 66ABDe	3.18	3.28b	3.48aB
BEING GOOD FOR EVEN VERY DRY SKIN - 5pt	3.34	3 38	3 74abDE	3.12	3 24	3 44
CLEANSING & MOISTURIZING AT THE SAME TIME - 5 pt	3 48	3 28	3 82BD	3.30	3.46	3.54
RELIEVING DRY SKIN - 5 pt	3.28	3.30	3.72ABDE	3.08	3.22	3.42
LEVEL OF SKIN IRRITATION:						
Extremely Irritating	2%	0%	0%	0%	0%	0%
Very Irritating	0%	0%	0%	0%	2%	0%
Somewhat Irritating	2%	0%	0%	2%	2%	4%
Slightly Irritating	4%	2%	0%	4%	4%	4%
Not at All Irritating	92%	98%	100%AdEF	94%	92%	92%
UNPLEASANT EYE REACTIONS						
Yes	2%	2%	2%	2%	4%	2%
No	98%	98%	98%	98%	96%	98%
LEVEL OF EYE IRRITATION						
Extremely Irritating	0%	0%	0%	0%	0%	0%
Very Irritating	0%	0%	2%	0%	2%	0%
Somewhat Irritating	2%	2%	0%	0%	0%	2%
Slightly Irritating	0%	2%	2%	2%	4%	2%
Not at All Irritating	98%	96%	96%	98%	94%	96%

* - a capital letter represents that the value given for the cleanser of that column is at a 95 degree confidence level with respect to the value given for the cleanser denoted by the capital letter. For example, "88% ABd" means that the 88% value is accurate to a 95% confidence level with respect to the values for the cleansers of columns A and B.

** - a lowercase letter represents that the value given for the cleanser of that column is at a 90 degree confidence level with respect to the value given for the cleanser denoted by the capital letter. For example, "88% ABd" means that the 88% value is accurate to a 90% confidence level with respect to the value for the cleansers of column d.

This Example showed that the moisturizing detergent composition of the present invention was superior with respect to cleansing, moisturizing, and improving healthy look and feel of skin, while remaining very gentle to skin and eyes. This Example further showed that the moisturizing detergent composition of the present invention was an effective eye and face make-up remover.

We Claim:

1.) A moisturizing detergent composition comprising:

a. a cationic polymer;

b. an emollient selected from the group consisting of a diester, a triester, or a mixture thereof;

c. a monoester emollient; and

d. a cleansing surfactant.

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

a. from about 0.01 percent to about 5 percent of a cationic polymer;

b. from about 0.1 percent to about 5 percent of an emollient selected from the group consisting of a diester, a triester, or a mixture thereof;

c. from about 0.1 percent to about 5 percent of a monoester emollient; and

d. from about 0.5 percent to about 50 percent of a cleansing surfactant.

3.) The composition of claim 1 comprising, based upon the total weight of the composition,

a. from about 0.01 percent to about 2 percent of a cationic polymer;

b. from about 1 percent to about 2.5 percent of an emollient selected from the group consisting of a diester, a triester, or a mixture thereof;

c. from about about 0.5 percent to about 3 percent of a monoester emollient; and

d. from about 5 percent to about 15 percent of a cleansing surfactant.

4.) The composition of claim 1 wherein the cationic polymer is selected from the group consisting of cationic polysaccharides; cationic homopolymers derived from acrylic and/or methacrylic acid; copolymers derived from acrylic and/or methacrylic acid; cationic cellulose resins; cationic copolymers of dimethyldiallylammonium chloride and acrylamide and/or acrylic acid; cationic homopolymers of dimethyldiallylammonium chloride; cationic polyalkylene imines; cationic ethoxypolyalkylene imines; quaternized silicones; and copolymers and mixtures thereof.

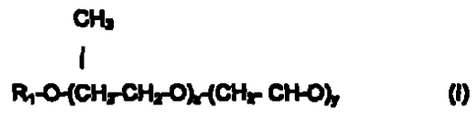
5.) The compositions of claim 4 wherein the cationic polymer is a cationic guar gum, a quaternized hydroxyethyl cellulose ether, a copolymer of acrylamide and

dimethyldiallylammonium chloride ether, a copolymer of vinyl pyrrolidone and quaternized branched vinylpyrrolidone, and copolymers and mixtures thereof.

6.) The composition of claim 5 wherein the cationic polymer is guar hydroxypropyltrimonium chloride, polyquaternium 10, and copolymers and mixtures thereof.

7.) The composition of claim 1 wherein the diester or triester results from the reaction of a diester or triester reactant comprised of two or more fatty alkoxylated moieties with a straight, branched or aromatic polyol or poly acid.

8.) The composition of claim 7, wherein the fatty alkoxylated moieties are of the formula I.:



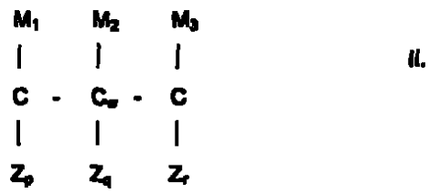
$$R_1\text{-}O\text{-}(CH_2\text{-}CH_2\text{-}O)_x\text{-}(CH_2\text{-}CH(CH_3)\text{-}O)_y \qquad (I)$$

wherein:

R_1 is a saturated or unsaturated, substituted or unsubstituted, straight, branched, or aromatic fatty moiety having a carbon chain length of from about 6 to about 30 atoms; and

Each x and y are independently zero or an integer from 1 to 200, inclusive, with the proviso that the sum of x and y in each fatty alkoxylated moiety is independently between 1 and 300, inclusive, and the sum of all xs and ys in the diester or triester does not exceed 800.

9.) The composition of claim 7, wherein the straight, branched, or aromatic polyol or polyacid is of the structure II.:



II.

Wherein:

M_1, M_2, and M_3 are independently a hydroxy, two single bonded hydrogens, or a double bonded oxygen;

Z_p, Z_q, and Z_r are independently hydrogen or a hydroxy;

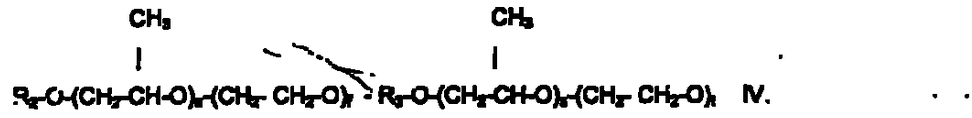
p, q, and r are independently zero or one, with the proviso that the sum of p + q + r is at least 2; and

w is zero or an integer between 1 and 20, inclusive.

10. The composition of claim 7, wherein the diester is di-PPG-2 myreth-10 adipate.

11. The composition of claim 1, wherein the monoester results from the reaction of a fatty acid moiety having a carbon chain length of from about 4 carbon atoms to about 30 carbon atoms with a monohydric or polyhydric alcohol.

12. The composition of claim 11, wherein the monoester is of the structure IV.:



IV.

Wherein:

R_c is a saturated or unsaturated, substituted or unsubstituted straight, branched, or aromatic fatty moiety having a carbon chain length of from about 4 to about 30 atoms;

R_d is a saturated or unsaturated, substituted or unsubstituted, straight, branched, or aromatic monohydric or polyhydric alcohol having a carbon chain length from about 3 atoms to about 30 atoms;

Each e, f, s, and t are independently zero or integers from 1 to 100, inclusive, with the provisos that the sum of e and f is zero or an integer between 0 and 200, inclusive, that the sum of s and t is zero or an integer between 0 and 200, inclusive, and that the sum of e, f, s, and t does not exceed 400.

13. The composition of claim 12, wherein the monoester is a glyceryl ester.

14. The composition of claim 13, wherein the glyceryl ester is selected from the group consisting of glyceryl oleate, PEG-7 glyceryl cocoate, and mixtures thereof.

15. The composition of claim 1, wherein the surfactant is selected from the group consisting of anionic, nonionic, amphoteric, betaine, cationic, and mixtures thereof.

16. The composition of claim 15, wherein the anionic surfactant is selected from the group consisting of alkyl sulfates, alkyl ether sulfates, sulfosuccinates, isethionates, acyl amides, alkyl ether carboxylates, alkyl phosphates, and mixtures thereof.

17. The composition of claim 15, 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.

18. The composition of claim 15 wherein the amphoteric surfactant is selected from the group consisting of alkyliminо-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.

19. The composition of claim 15 wherein the betaine surfactant is selected from the group consisting of alkyl betaines, alkylamido betaines, alkyl sultaines, alkylamido sultaines, and mixtures thereof.

20. The composition of claim 15 wherein the cationic surfactant is selected from the group consisting of mono alkyl quaternaries, di alkyl quaternaries, tri alkyl quaternaries, benzyl quaternaries, ester quaternaries, ethoxylated quaternaries, alkyl amines, and mixtures thereof.

21. The composition of claim 15 wherein the surfactant is selected from the group consisting of cocoamidopropyl betaine, disodium lauroamphodiacetate, sodium laureth sulfate, decyl glucoside, cocoglucoside, POE 80 sorbitan monolaurate, and mixtures thereof.

22. The composition of claim 1 wherein each monoester, diester, and triester possesses an HLB of less than or equal to about 11.

23. The composition of claim 22 wherein each monoester, diester, and triester possesses an HLB of greater than or equal to about 4 and less than or equal to about 11.

24. A personal care product comprised of the composition of claim 1.

25. The product of claim 24 in the form of a lotion, cream, gel, soap, bath, mousse, tonic, or wash.

26. A method of using the composition of claim 1 to impart a moisturizing residue to skin after the composition is rinsed therefrom.

27. A kit comprised of:

a) the composition of claim 1; and

b) a cleansing implement.

28. The kit of claim 27 wherein the cleansing implement is a pouf.

29. A makeup remover comprised of the composition of claim 1.

30. A moisturizing detergent composition comprising, based upon the total weight of the composition,

a. from about 0.01 percent to about 5 percent of guar hydroxypropyltrimonium chloride and/or polyquaternium 10;

b. from about 0.1 percent to about 5 percent of di-PPG-2 myreth-10 adipate;

c. from about about 0.1 percent to about 5 percent of a glyceryl ester; and

d. from about 8 percent to about 60 percent a cleansing surfactant.

31. The composition of claim 30 wherein the glyceryl ester is selected from the group consisting of glyceryl oleate, PEG-7 glyceryl cocoate, and mixtures thereof.

32. A personal care product comprised of the composition of claim 30.

33. The product of claim 32 in the form of a lotion, cream, gel, soap, bath, mousse, tonic, or wash.

34. A method of using the composition of claim 30 to impart a moisturizing residue to skin after the composition is rinsed therefrom.

35. A kit comprised of:

a) the composition of claim 30; and

b) a cleansing implement.

36. The kit of claim 35 wherein the cleansing implement is a pouf.

37. A makeup remover comprised of the composition of claim 30.

Abstract Of The Disclosure

A moisturizing detergent composition that is mild to the skin and eyes is disclosed. The composition includes a cationic polymer, a monoester emollient, a di-and/or tri-ester emollient and a surfactant. The compositions are useful as shampoos, washes, baths, gels, lotions, creams, and the like.

Jbp561app-1.doc

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PTO/SB/01 (10-00)
Approved for use through 10/31/2002. OMB 0651-0032
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DECLARATION AND POWER OF ATTORNEY FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)		
☐ Declaration Submitted with Initial Filing OR ☒ Declaration Submitted after Initial Filing (Surcharge (37 CFR 1.16(e)) required)	Attorney Docket Number	JBP-561
	First Named Inventor	Gregory BOOKER et al.
	COMPLETE IF KNOWN	
	Application Number	
	Filing Date	
	Group Art Unit	
	Examiner Name	

As a below named inventor, I hereby declare that:

My residence, mailing 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:

MOISTURIZING DETERGENT COMPOSITIONS
(Title of the Invention)

the specification of which

☐ is attached hereto

OR

☒ was filed on 08/16/2001 as United States Application Number or PCT International Application Number
☐ and was amended on (MM/DD/YYYY)

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

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 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 any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? YES	NO
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

99317028 081601

HP
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09931703 081501

DECLARATION - Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	
		☐ Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

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
		Patented Patented Patented

I hereby appoint:

☒ Practitioners at Customer Number 000027777 –

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AND

☐ Practitioner(s) named below:

Name — Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Address all telephone calls to Michele G. Mergini at telephone number (732) 524-2810.

Direct all correspondence to: ☒ Customer Number or Bar Code Label 000027777 OR ☐ Correspondence address below

Name:		
Address:		
Address:		
City:	State:	ZIP
Country	Telephone:	Fax:

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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 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR:	☐ A petition has been filed for this unsigned inventor
Given Name (first and middle (if any)) Gregory	Family Name or Surname BOOKER
Inventor's Signature	Date
Residence: City Philadelphia / State PA / Country U.S.A. / Citizenship U.S.A.	
Mailing Address 2613 Swain Street	
City Philadelphia / State PA / ZIP 19130 / Country U.S.A.	

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 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SECOND INVENTOR:	☐ A petition has been filed for this unsigned inventor
Given Name (first and middle (if any)) Joseph	Family Name or Surname UBRIZZI
Inventor's Signature	Date
Residence: City Nesharic / State NJ / Country U.S.A. / Citizenship U.S.A.	
Mailing Address 19 Norz Drive	
City Nesharic / State NJ / ZIP 08853 / Country U.S.A.	

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 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF THIRD INVENTOR:	☐ A petition has been filed for this unsigned inventor
Given Name (first and middle (if any)) Dolores	Family Name or Surname SANTORA
Inventor's Signature	Date
Residence: City Hillsborough / State NJ / Country U.S.A. / Citizenship U.S.A.	
Mailing Address 29 Dilmars Circle	
City Hillsborough / State NJ / ZIP 08844 / Country U.S.A.	

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ESTADOS UNIDOS DE AMERICA
A TODOS AQUELLOS A QUIENES EL PRESENTE LLEGUE:

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

Agosto 14, 2002

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: 09/954,335

Fecha de Presentación: Septiembre 17 de 2001

Por la autoridad del
Comisionado de Patentes y Marca

(fdo) N. WOODSON
Oficial Certificador
Sello oficial de la Oficina de Patentes y Marcas de los
Estados Unidos de América

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REIVINDICACIONES

1. Una composición limpiadora que comprende:

   por lo menos un agente activo de superficie no iónico glicósido;

   por lo menos un agente activo de superficie de betaína; y

   por lo menos un agente activo de superficie anfotérico, en donde la composición está sustancialmente libre de agentes activos de superficie aniónicos.

2. La composición de la reivindicación 1 en donde la composición posee un bajo grado de carácter irritante ocular y produce una espuma estable de larga duración.

3. La composición de acuerdo con la reivindicación 1, en donde el agente activo de superficie glicósido no iónico se selecciona entre coco glucósido, octil glucósido, decil glucósido, lauril glucósido, y sus mezclas.

4. La composición de acuerdo con la reivindicación 3 en donde la cantidad de agente activo de superficie glicósido no iónico varía desde 0,1% hasta 20% en peso, con relación al peso total de la composición.

5. La composición de acuerdo con la reivindicación 3 en donde la cantidad de agente activo de superficie no iónico glicósido varía desde 0,5% hasta 15% en peso, con relación al peso total de la composición.

6. La composición de acuerdo con la reivindicación 3 en donde la cantidad de agente activo de superficie glicósido no iónico varía desde 1% hasta 10% en peso, con relación al peso total de la composición.

7. La composición de acuerdo con la reivindicación 1, en donde el agente activo de superficie de betaína se selecciona entre el grupo formado por betaínas alquílicas, sultaínas alquílicas, betaínas amidoalquílicas, amidoalquilsultaína, y sus mezclas, en donde el grupo alquilo contiene desde 8 hasta 22 átomos de carbono.

8. La composición de acuerdo con la reivindicación 7 en donde el agente activo de superficie de betaína es decil betaína, hidroxisultano laurílico, oleamidopropilhidroxi sultaína, cocamidopropil betaína, y sus mezclas.

9. La composición de acuerdo con la reivindicación 7 en donde la cantidad de agente activo de superficie de betaína varía desde 0,1% hasta alrededor de 20% en peso, con relación al peso total de la composición.

10. La composición de acuerdo con la reivindicación 7, en donde la cantidad de agente activo de superficie de betaína varía desde 0,5% hasta 15% en peso con relación al peso total de la composición.

11. La composición de acuerdo con la reivindicación 1, en donde el agente activo de superficie anfotérico se selecciona entre el grupo formado por anfocarboxilatos, alquilamido alquilaminas, aminoácidos alquil sustituidos, anfofosfatos, carboxialquilpoliaminas, y sus mezclas, en donde el grupo alquilo contiene desde 8 hasta 22 átomos de carbono.

12. La composición de acuerdo con la reivindicación 11, en donde los agentes activos de superficie anfotéricos se seleccionan entre el grupo formado por lauroanfodiacetato, lauriminodipropionato, cocoanfopropionato, ácido lauroanfodipropiónico, capriloanfohidroxipropil sulfonato, y sus mezclas.

13. La composición de acuerdo con la reivindicación 11 en donde la cantidad de agente activo de superficie anfotérico varía desde 0,1% hasta 20% en peso, con base en el peso total de la composición.

18. La composición de acuerdo con la reivindicación 1 en donde la relación de la cantidad del agente activo de superficie de betaína a la cantidad del agente activo de superficie anfotérico varía desde 1 a 2, hasta 10 a 1.

19. La composición de acuerdo con la reivindicación 1 en donde la relación de la cantidad del agente activo de superficie no iónico glicósido a agente activo de superficie de betaína a agente activo de superficie anfotérico varía desde 1:1,3:2,66 hasta 16,5:10:1.

20. La composición de la reivindicación 1 que comprende adicionalmente desde 0,1% hasta 5% de un polímero acondicionador catiónico; desde 1,1% hasta 5% de un emoliente seleccionado entre el grupo formado por un diéster, un triéster, o una mezcla de los mismos; y desde 0,1% hasta 10% de un emoliente monoestérico.

21. La composición de la reivindicación 1 que comprende adicionalmente un agente de beneficio.

22. La composición de la reivindicación 21, en donde el agente de beneficio se selecciona entre el grupo formado por ácido salicílico, ácido láctico, ácido glicólico, y sus mezclas.

23. La composición de la reivindicación 21, en donde el agente de beneficio se selecciona entre el grupo formado por cloruro de benzetonio, cloruro de benzalconio y sus mezclas.

24. El uso de la composición de la reivindicación 1 con un instrumento seleccionado entre el grupo formado por un limpión, una toalla, una malla o película provista de aberturas, rollo de fibras, esponja, y un cepillo.

25. Un conjunto formado por la composición de la reivindicación 1 y un instrumento seleccionado entre el grupo formado por un limpión, una toalla, una malla o película provista de aberturas, rollo de fibras, esponja, y un cepillo.

26. El conjunto de la reivindicación 25, en donde la composición posee un bajo grado de carácter irritante ocular y proporciona una espuma estable de larga duración.

PA 0822886

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

August 14, 2002

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: ***09/954,335***
FILING DATE: ***September 17, 2001***

By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

N. WOODSON
Certifying Officer

09-18-01

A

Please type a plus sign (+) inside this box [+]

UTILITY PATENT APPLICATION TRANSMITTAL	Attorney Docket No.	JBP-566
Only for new nonprovisional applications under 37 CFR 1.53(b)	First Inventor	BOOKER Gregory, et al.
	Title	MILD CLEANSING COMPOSITION HAVING STABLE FOAM
	Express Mail Label No.	EL710605936US

APPLICATION ELEMENTS

See MPEP Chapter 600 concerning utility patent application contents.

ADDRESS TO: Commissioner for Patents
Box Patent Application
Washington, DC 20231

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17) *(submit an original and a duplicate for fee processing)*
2. ☐ Applicant claims small entity status.
3. ☒ Specification [Total Pages - 30] *(Preferred arrangement set forth below)*
   - Descriptive Title of the Invention
   - Cross Reference to Related Applications
   - Statement Regarding Fed sponsored R&D
   - Reference to sequence listing, a table, or a computer program listing 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
4. ☐ Drawing(s) *(35 USC 113)* [Total Sheets - 0]
5. Oath or Declaration [Total Pages - 3]
   a. ☒ Newly unexecuted (original or copy)
   b. ☐ Copy from a prior application (37 CFR 1.63(d)) *(for continuation/divisional with Box 18 completed)*
      i. ☐ 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).
6. ☐ Application Data Sheet. See 37 CFR 1.76
7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
   a. ☐ Computer Readable Form (CRF)
   b. ☐ Specification Sequence Listing on:
      i. ☐ CD-ROM or CD-R (2 copies); or
      ii. ☐ paper
   c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney *(when there is an assignee)*
11. ☐ English Translation Document *(if applicable)*
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) *(Should be specifically itemized)*
15. ☐ Certified Copy of Priority Document(s) *(if foreign priority is claimed)*
16. ☐ Request and Certifications under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other

18. ☐ If a CONTINUING APPLICATION, *check appropriate box and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:*

☐ Continuation ☐ Divisional ☒ Continuation-in-Part (CIP) of prior application No.:09/931,703, filed 8/16/01.

Prior application information: Examiner Group Art Unit:

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

☒ Customer Number or Bar Code Label 000027777 or ☐ Correspondence Address below

Name: Philip S. Johnson, Esq.
Address: Johnson & Johnson
One Johnson & Johnson Plaza
New Brunswick, NJ 08933-7003 USA

20. TELEPHONE CONTACT

Please direct all telephone calls or telefaxes to Michele G. Mangini at:
Telephone: (732) 524-2810 Fax: (732) 524-2808

21. SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

NAME	Michele G. Mangini	Reg. No. 36,806
SIGNATURE	Michele Mangini	
DATE	September 17, 2001	

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FEE TRANSMITTAL	Complete if Known	
	Application Number	N/A; CIP to 09/931,703
	Filing Date	17 September 2001
	First Named Inventor	BOOKER Gregory, et al.
	Group Art Unit	
	Examiner Name	
	Attorney Docket Number	JBP-588

FEE CALCULATION

CLAIMS AS FILED

(1)	(2)	(3)	(4)	(5)
FOR:	NUMBER FILED	NUMBER EXTRA	RATE	BASIC FEE $710.00
TOTAL CLAIMS	26 - 20 =	6	x 18.00	$108.00
INDEPENDENT CLAIMS	1 - 3 =	0	x 80.00	$ 0.00
MULTIPLE DEPENDENT CLAIMS	☐	N/A	$270.00	
			TOTAL FEES	$ 818.00

METHOD OF PAYMENT

☒ Please charge Deposit Account No. 10-0750/JBP-588/MGM in the amount of $818.00. Three copies of this sheet are enclosed.

☒ The Commissioner is hereby authorized to charge any additional fees which may be required in connection with the filing of this communication, or credit any overpayment, to Account No. 10-0750/JBP-588/MGM. Three copies of this sheet are enclosed.

SUBMITTED BY:			Complete (if applicable)
Typed or Printed Name	Michele G. Mangini		Reg. No. 36,606
Signature	Michele G Mangini	Date: 9/17/01	Deposit Account No. 10-0750

DOCKET NO. JBP-568

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Applicant: BOOKER Gregory, et al.

For : MILD CLEANSING COMPOSITION HAVING STABLE FOAM

Express Mail Certificate

"Express Mail" mailing number: EL710605938US

Date of Deposit: September 17, 2001

I hereby certify that this complete application (including 30 specification pages and 26 claims), Transmittal (2 pp.), and unexecuted Combined Declaration and Power of Attorney, is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

An executed Combined Declaration and Power of Attorney will be submitted to the United States Patent and Trademark Office upon receipt of the U.S. Serial Number for this patent application.

Karen Hall-Morgan
(Typed or printed name of person mailing paper or fee)

Karen Hall-Morgan
(Signature of person mailing paper or fee)

Mild Cleansing Composition Having Stable Foam

Cross-Reference to Related Application

This Application is a continuation-in-part application of United States Application Number 09/931,703 filed on 16 August 2001, which is incorporated herein by reference in its entirety.

Background of the Invention

1. Field of the Invention

The present invention relates to a skin and hair cleansing composition capable of producing stable foam and having a low degree of ocular and skin irritation. More specifically, this invention is related to such compositions having a mixture of a betaine surfactant, an amphoteric surfactant, and a nonionic surfactant. The compositions are substantially free of anionic surfactants.

2. Description of the Prior Art

It is well known that many surfactants used in shampoos and cleansing compositions are irritating to the eyes, which is of particular concern in shampoos and cleansing compositions used on infants and children. As a result, several less irritating surfactants have been developed.

Foam is a critical property of cleansing compositions, especially personal care products such as shampoos, body washes, hand cleansers, and facial washes. Foam quality and quantity is an important cue to the consumer that the product is an efficacious, quality product. Foam also serves a functional property in that it helps emulsify dirt and oil from the skin and hair and carries the emulsified dirt away.

Surfactants, especially anionic surfactants, are the primary foaming ingredients found in cleansing compositions today. Anionic surfactants, such as sulfates, sulfonates, isethionates, sulfosuccinates, and taurates, are known for providing large quantities of very stable foam. However, anionic surfactants are not without their drawbacks. For example, anionic surfactants may strip skin and hair of their natural oils, which thereby damages hair and leaves skin dry and compromised. Anionic surfactants are also known as irritants to the

skin and eyes. For these reasons, compositions containing anionic surfactants may be unsuitable for baby products or for products intended for people with damaged or sensitive skin.

Additionally, anionic surfactants are often prone to hydrolysis, which renders them unsuitable for use in a low pH environment. Furthermore, anionic surfactants may be incompatible with cationic ingredients, which thereby renders them unsuitable for a number of applications.

Alternative surfactants that have been used to minimize the deleterious effects of anionic surfactants include both amphoteric and nonionic surfactants. However, although such surfactants do not possess the above negative properties associated with anionic surfactants, they disadvantageously tend to generate poor, unstable foam relative to that generated by anionic surfactants. This is one reason as to why they are not widely used as primary foaming agents. But see Patent Cooperation Treaty Patent Application No. WO 97/47171 foaming systems consisting of an alkylpolyglucoside nonionic surfactant and an amphoteric surfactant). Although such amphoteric-non ionic systems are capable of generating foam, that foam is not stable, i.e. long-lasting.

Therefore, there is a need for a cleansing composition based on amphoteric and nonionic surfactants that provides a large quantity of stable, dense foam, but which does not possess the known deleterious effects associated with anionic surfactants.

Summary of the Invention

The present invention provides a mild cleansing composition capable of producing a stable foam comprising, consisting essentially of, and/or consisting of: at least one glycoside nonionic surfactant; at least one betaine surfactant; and at least one amphoteric surfactant, wherein the composition is substantially free of anionic surfactant.

We have unexpectedly found that the cleansing compositions of the present invention are not only effective in providing a superior stable foam, but do so with a low degree of skin and ocular irritation.

Detailed Description of Preferred Embodiments

The first component of the compositions of the present invention is at least one glycoside nonionic surfactant. Glycosides are nonionic surfactants that have a hydrophobic group containing about 6 to about 30 carbon atoms and a polysaccharide (polyglycoside) hydrophilic group containing about 1 to about 10 saccharide units. Suitable glycosides include, but are not limited to, coco glucoside, octyl glucoside, decyl glucoside, lauryl glucoside, and mixtures thereof. The amount of glycoside in the compositions of the present invention may range from about 0.1% to about 20%, e.g. from about 0.5% to about 15% or from about 1.0% to about 10% by weight, based on the total weight of the composition.

The second component of the compositions of the present invention is at least one betaine surfactant. As used herein, betaines are typically either cationic at low pH, i.e., at about 4 or less, or isoelectric at intermediate pH, e.g. at about 7. Suitable betaine surfactants include, but are not limited to, alkyl betaines such as decyl betaine, alkyl sultaine such as lauryl hydroxysultaine, amidoalkyl betaines such as cocamidopropylbetaine, amidoalkylsultaine such as oleamidopropylhydroxysultaine, and mixtures thereof, wherein the alkyl group contains from about C_8 to about C_{22} carbon atoms. The amount of betaine surfactant in the compositions of the present invention may range from about 0.1% to about 20%, e.g. from about 0.5% to about 15% or from about 1.0% to about 10% by weight, based on the total weight of the composition.

The third component of the compositions of the present invention is at least one amphoteric surfactant, which may exist in three different forms depending upon pH: cationic at low pH, i.e. at about 4 or less, zwitterionic at intermediate pH, i.e. at about 7, and anionic at high pH, i.e. at about 10 or higher. Suitable amphoteric surfactants include, but are not limited to, amphocarboxylates, alkylamidoalkylamine, alkyl substituted amino acids, amphophosphates, carboxyalkyl alkyl polyamines, and mixtures thereof, wherein the alkyl group contains from about C_8 to about C_{22} carbon atoms. Particularly suitable amphoteric surfactants include, but are not limited to, lauroamphodiacetate, lauriminodipropionate, cocoamphopropionate, lauroamphodipropionic acid, caprylcamphohydroxypropylsulfonate, and mixtures thereof. The amount of amphoteric surfactant in the compositions of the present invention may range

from about 0.1% to about 20%, e.g. from about 0.5% to about 15% or from about 1.0% to about 10% by weight, based on the total weight of the composition.

The amphoteric surfactants are disclosed herein without a counter ion. One skilled in the art would readily recognize that under the pH conditions of the compositions of the present invention, the amphoteric surfactants are either electrically neutral by virtue of having balancing positive and negative charges, or they have counter ions such as, but not limited to, alkali metal, alkaline earth, or ammonium counter ions.

The ratio of the amount of the glycoside nonionic surfactant to the sum of the amounts of the amphoteric surfactant and the betaine surfactant may range from about 1 to 4 to about 1.5 to 1. The ratio of the amount of the betaine surfactant to the amount of the amphoteric surfactant may range from about 1 to 2 to about 10 to 1. The ratio of glycoside nonionic surfactant to betaine surfactant to amphoteric surfactant may range from about 1 : 1.3 : 2.66 to about 16.5 : 10 : 1, respectively.

The compositions of the present invention are substantially free of anionic surfactant. As used herein, "substantially free" of anionic surfactant means that the compositions contain less than about 1 percent, e.g. less than about 0.5 percent or less than about 0.1 percent by weight anionic surfactant, based on the total weight of the composition. The term "anionic surfactant", as used herein, means a negatively charged surfactant, and includes but is not limited to sulfates, sulfonates, isethionates, sulfosuccinates, taurates, and mixtures thereof.

Additional surfactants may be useful in the compositions of the present invention in an amount, based upon the total weight of the compositions, from about 0.5 percent to about 5 percent. One class of nonionic surfactants useful in the present invention are polyoxyethylene derivatives of polyol esters, wherein the polyoxyethylene derivative of polyol ester (1) is derived from (a) a fatty acid containing from about 8 to about 22, and preferably from about 10 to about 14 carbon atoms, and (b) a polyol selected from sorbitol, sorbitan, glucose, α-methyl glucoside, polyglucose having an average of about 1 to about 3 glucose residues per molecule, glycerine, pentaerythritol and mixtures thereof, (2) contains an average of from about 10 to about 120,

and preferably about 20 to about 80 oxyethylene units; and (3) has an average of about 1 to about 3 fatty acid residues per mole of polyoxyethylene derivative of polyol ester.

Examples of preferred polyoxyethylene derivatives of polyol esters include, but are not limited to PEG-80 sorbitan laurate and Polysorbate 20. PEG-80 sorbitan laurate, which is a sorbitan monoester of lauric acid ethoxylated with an average of about 80 moles of ethylene oxide, is available commercially from ICI Surfactants of Wilmington, Delaware under the tradename, "Atlas G-4280." Polysorbate 20, which is the laurate monoester of a mixture of sorbitol and sorbitol anhydrides condensed with approximately 20 moles of ethylene oxide, is available commercially from ICI Surfactants of Wilmington, Delaware under the tradename "Tween 20."

Optionally, the cleansing compositions of this invention may also contain, based upon the total weight of the cleansing composition, from about 0.01 percent to about 1.0 percent, e.g. from about 0.01 percent to about 0.5 percent or from about 0.01 to about 0.2 percent of at least one primary conditioning agent.

Suitable primary conditioning agents include, but are not limited to those cationic conditioning polymers having a high molecular weight ranging from about 2,000 to about 5,000,000, e.g. from about 5,000 to about 3,000,000 or from about 100,000 to about 1,000,000.

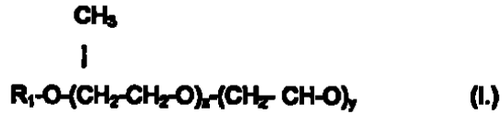
Representative classes of such suitable cationic conditioning polymers include, but are not limited to cationic polysaccharides; cationic homopolymers and copolymers derived from acrylic and or methacrylic acid; cationic cellulose resins; cationic copolymers of dimethyldiallylammonium chloride and acrylamide and/or acrylic acid; cationic homopolymers of dimethyldiallylammonium chloride; cationic polyalkylene and ethoxypolyalkylene imines; quaternized silicones and copolymers and mixtures thereof. For example, such cationic polymers include the cationic guar gums such as guar hydroxypropyltrimonium chloride, which is commercially available from Rhodia Incorporated, under the tradename, "Jaguar C17;" quaternized hydroxy ethyl cellulose ethers such as polyquaternium 10, which are commercially available from Amerchol Corporation under the tradename, "Ucare Polymer JR 400;" copolymers of acrylamide and

dimethyldiallylammonium chloride ethers, which are also known as polyquaternium 7 and are commercially available from the McIntyre Group Ltd. under the tradename, "Mackernium 007" or from Allied Colloids under the tradename "Salcare SC10;" copolymers of vinylpyrrolidone and quaternized branched vinylpyrrolidone, which are commercially available from BASF Corporation under the tradename, "Luviquat Care;" Polyquaternium-6, which is available commercially from Allied Colloids under the tradename, "Salcare SC30;" and copolymers and mixtures thereof.

In one embodiment, the primary conditioner agent comprises, consists of, or consists essentially of, based upon the overall weight of the cleansing composition, from about 0.01 percent to about 0.5 percent, e.g. from about 0.01 percent to about 0.2 percent, cationic guar derivative and from about 0.01 percent to about 0.5 percent, e.g. from about 0.01 percent to about 0.2 percent, of a homopolymer or copolymer of diallyldimethylammonium chloride.

In another embodiment, the primary conditioning agent comprises, consists of, and/or consists essentially of, based upon the total weight of the composition, from about 0.01 percent to about 5 percent, e.g. from about 0.01 percent to about 3 percent or from about 0.01 percent to about 2 percent of a cationic conditioning polymer; from about 0.1 percent to about 5 percent, e.g. from about 0.5 percent to about 3 percent, or from about 0.1 percent to about 2.5 percent of an emollient selected from the group consisting of a diester, a triester, or a mixture thereof; and from about 0.1 percent to about 10 percent, e.g. from about 0.5 percent to about 5 percent or from about 0.75 percent to about 3 percent of a monoester emollient.

Suitable diester or triester emollients may be made via the known reaction of fatty alkoxylated esters with a straight, branched or aromatic polyol or poly acid to form a diester or triester of a straight, branched or aromatic polyol or poly acid. The diester or triester reactant is comprised of two or three fatty alkoxylated moieties, respectively, having the structure set forth in formula I.:



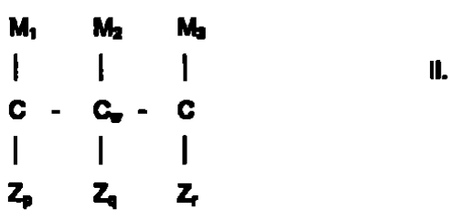
(I.)

wherein:

R_1 is a saturated or unsaturated, substituted or unsubstituted, straight, branched, or aromatic fatty moiety having a carbon chain length of from about 6 to about 30 atoms; and

Each x and y are independently zero or an integer from 1 to 200, inclusive, with the proviso that the sum of x and y in each fatty alkoxylated moiety is independently between 1 and 300, inclusive, and the sum of all xs and ys in the diester or triester does not exceed 600.

The straight, branched, or aromatic polyol or polyacid is of the formula set forth in structure II.:



II.

Wherein:

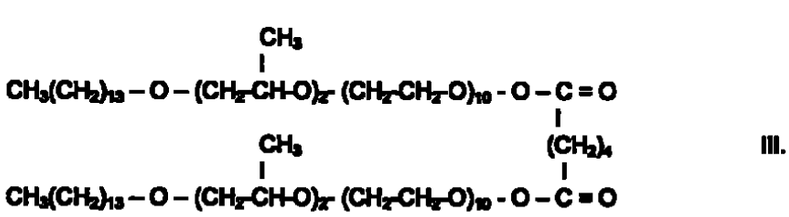
M_1, M_2, and M_3 are independently a hydroxy, two single bonded hydrogens, or a double bonded oxygen;

Z_p, Z_q, and Z_r are independently hydrogen or a hydroxy;

p, q, and r are independently zero or one, with the proviso that the sum of p + q + r is at least 2; and

w is zero or an integer between 1 and 20, inclusive.

One suitable diester is Di-PPG-2 Myreth-10 Adipate, which is commercially available from Croda, Incorporated under the tradename, "Cromollient SCE," and has the structure set forth in formula III.:



III.

Monoester emollients suitable for use in the present invention include the esters made via the known reaction of a straight, branched or aromatic fatty acid having from about 4 carbon atoms to about 30 carbon atoms with a straight, branched or aromatic monohydric or polyhydric alcohol. If desired, the monohydric or polyhydric alcohol may be alkoxylated using known methods to improve its water solubility. The resulting monoester is of the structure set forth in formula IV.:

$$R_2\text{-}O\text{-}(CH_2\text{-}CH(CH_3)\text{-}O)_e\text{-}(CH_2\text{-}CH_2\text{-}O)_f\text{-}R_6\text{-}O\text{-}(CH_2\text{-}CH(CH_3)\text{-}O)_s\text{-}(CH_2\text{-}CH_2\text{-}O)_t \quad \text{IV.}$$

Wherein:

R_2 is a saturated or unsaturated, substituted or unsubstituted straight, branched, or aromatic fatty moiety having a carbon chain length of from about 4 to about 30 atoms;

R_6 is a saturated or unsaturated, substituted or unsubstituted, straight, branched, or aromatic monohydric or polyhydric alcohol having a carbon chain length from about 3 atoms to about 30 atoms; and

Each e, f, s, and t are independently zero or integers from 1 to 100, inclusive, with the provisos that the sum of e and f is zero or an integer between 1 and 200, inclusive, that the sum of s and t is zero or an integer between 1 and 200, inclusive, and that the sum of e, f, s, and t does not exceed 400.

Examples of monoesters suitable for use in the present invention include the glyceryl esters, such as glyceryl oleate, which is commercially available from the Goldschmidt Chemical Corporation under the tradename, "Tegin O;" PEG-7 Glyceryl Cocoate, which is commercially available from Croda Incorporated under the tradename, "Glycerox HE;" and mixtures thereof.

In one embodiment, the HLB value of one or more of the di-/tri-ester emollients and monoester emollients is less than about 11, e.g. from about 2 to about 11 or from about 4 to about 11. In another embodiment, all of the di-/tri-ester emollients and the monoester emollients have an HLB value of less than about 11, e.g. from about 2 to about 11 or from about 4 to about 11.

The cleansing composition of the present invention may optionally include a chelating agent. Examples of suitable chelating agents include those which are capable of protecting and preserving the compositions of this invention. Preferably, the chelating agent is 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, from about 0 to about 0.5 percent, e.g. from about 0.05 percent to about 0.25 percent.

The cleansing compositions of the present invention may optionally include a preservative. Suitable preservatives include, but are not limited to, Quaternium-15, available commercially as "Dowicil 200" from the Dow Chemical Corporation of Midland, Michigan, and benzalkonium chloride 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, e.g. from about 0.05 percent to about 0.10 percent.

Optionally, a benefit agent may be included in the composition of the present invention. By "benefit agent," it is mean any active ingredient that is to be delivered into and/or onto the skin at a desired location, such as a cosmetic agent or a pharmaceutical agent. By "cosmetic agent," it is meant any ingredient that is appropriate for cosmetically treating, providing nutrients to, and/or conditioning the hair and/or skin via topical application. By "pharmaceutical agent," it is mean any drug that is either hydrophobic or hydrophilic in nature and appropriate for topical use. As used herein "medicament agents" include those agents capable of promoting recovery from injury and illness.

Examples of suitable benefit agents include, but are not limited to, depigmentation agents; reflectants; thickening agents; detangling/wet combing agents; film forming polymers; humectants; amino acid agents; antimicrobial agents; allergy inhibitors; anti-acne agents; anti-aging agents; anti-wrinkling agents, antiseptics; analgesics; antitussives; antipruritics; local anesthetics; anti-hair loss agents; hair growth promoting agents; hair growth inhibitor agents, antihistamines; antiinfectives; inflammation inhibitors; anti-emetics; anticholinergics; vasoconstrictors; vasodilators; wound healing promoters; peptides, polypeptides and

proteins; deodorants and anti-perspirants; medicament agents; skin emollients and skin moisturizers; vitamins; tanning agents; skin lightening agents; antifungals such as antifungals for foot preparations; depilating agents; shaving preparations; external analgesics; perfumes; counterirritants; hemorrhoidals; insecticides; poison ivy products; poison oak products; burn products; anti- diaper rash agents; prickly heat agents; make-up preparations; vitamins; amino acids and their derivatives; herbal extracts; retinoids; flavoids; sensates; anti-oxidants; secondary hair and/or skin conditioners; pearlescent agents; hair lighteners; chelating agents; cell turnover enhancers; coloring agents; pigments; sunscreens and the like, and mixtures thereof.

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 is 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: $HO-(JO)_a-H$, wherein J is an alkylene group having from about 2 to about 3 carbon atoms; and a 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 15 to about 21 carbon atoms; inorganic solids insoluble in the shampoo composition, and mixtures thereof.

Examples of suitable reflectants nonexclusively include mica, alumina, calcium silicate, glycol dioleate, glycol distearate, silica, sodium magnesium fluorosilicate, and mixtures thereof.

Examples of suitable UV absorbers include benzophenone, bornelone, butyl paba, cinnamidopropyl trimethyl ammonium chloride, disodium distyrylbiphenyl disulfonate, paba, potassium methoxycinnamate, and mixtures thereof.

Commercially available thickening agents that are capable of imparting the appropriate viscosity to the 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 polyethylene glycol of formula V.

$$HO\text{-}(CH_2CH_2O)_zH \qquad V.$$

wherein z is an integer from about 3 to about 200;

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 acids and glycerine; hydroxyalkyl cellulose; alkyl cellulose; hydroxyalkyl alkyl cellulose; and mixtures thereof. More specifically, suitable thickening agents nonexclusively include behenalkonium chloride; cetyl alcohol, quaternium 48, PG-hydroxyethyl cellulose, cocodimonium chloride, polyquaternium 6, polyquaternium 7, quaternium 18, PEG-18 glycerol oleate/cocoate, a mixture of acrylates/spirit 50 acrylate copolymer, laureth 3 and propylene glycol, which is commercially available from Goldschmidt under the tradename "Antil 208," a mixture of cocamidopropylbetaine and glyceryl laurate which is commercially available from Goldschmidt under the tradename, "Antil HS60," a mixture of propylene glycol, PEG 55, and propylene glycol oleate, which is commercially available from Goldschmidt under the tradename, "Antil 414 liquid," PEG-150 distearate which is available from the Stepan Company of Northfield, Illinois or from Comiel, S.p.A. of Bologna, Italy under the tradename, "PEG 6000 DS", and mixtures thereof.

Suitable detangling/wet combing agents nonexclusively include dioleoylamidoethyl hydroxythylmonium methosulfate, di (soyoylethyl) hydroxyethylmonium methosulfate, hydroxyethyl behenamidopropyl dimonium chloride, oleaikonium chloride, polyquaternium 47, stearalkonium chloride, tricetylmonium chloride, and mixtures thereof.

Suitable film forming polymers include those that, upon drying, produce a substantially continuous coating or film on the hair, skin, or nails. Nonexclusive examples of suitable film forming polymers include acrylamidopropyl trimonium chloride/acrylamide copolymer; corn starch/ acrylamide/ sodium acrylate copolymer; polyquaternium 10; polyquaternium 47;

polyvinylmethyl/maleic anhydride copolymer; styrene/acrylates copolymers; and mixtures thereof.

Commercially available humectants which are capable of providing moisturization and conditioning properties to the cleansing composition are suitable for use in the present invention. The humectant is preferably present in an amount of from about 0 percent to about 10 percent, more preferably from about 1.5 percent to about 7 percent, and most preferably from about 2 percent to about 5 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, pentylene glycol, dipropylene glycol, and mixtures thereof; 2) polyalkylene glycol of the formula VI:

$$HO-(R'O)_b-H \qquad VI.$$

wherein R' is an alkylene group having from about 2 to about 4 carbon atoms and b is an integer of from about 1 to about 10, such as PEG 4; 3)

polyethylene glycol ether of methyl glucose of formula VII:

$$CH_3-C_6H_{10}O_5-(OCH_2CH_2)_c-OH \qquad VII.$$

wherein c is an integer from about 5 to about 25:

4) urea; 5) fructose; 6) glucose; 7) honey; 8) lactic acid; 9) maltose; 10) sodium glucuronate; and 11) mixtures thereof.

Suitable amino acid agents include amino acids derived from the hydrolysis of various proteins as well as the salts, esters, and acyl derivatives thereof. Examples of such amino acid agents nonexclusively include amphoteric amino acids such as alkylamido alkylamines, i.e. stearyl acetyl glutamate, capryloyl silk amino acid, capryloil collagen amino acids; capryloyl kertain amino acids; capryloyl pea amino acids; cocodimonium hydroxypropyl silk amino acids; corn gluten amino acids; cysteine; glutamic acid; glycine; hair keratin amino acids; hair amino acids such as aspartic acid, threonine, serine, glutamic acid, proline, glycine, alanine, half-cystine, valine, methionine, isoleucine, leucine, tyrosine, phenylalanine, cysteic acid, lysine, histidine, arginine, cysteine, tryptophan, citrulline; lysine; silk amino acids, wheat amino acids; and mixtures thereof.

Suitable proteins include those polymers that have a long chain, i.e. at least about 10 carbon atoms, and a high molecular weight, i.e. at least about 1000, and are formed by self-condensation of amino acids. Nonexclusive examples of such proteins include collagen, deoxyribonuclease, lodized corn protein; keratin; milk protein; protease; serum protein; silk; sweet almond protein; wheat germ protein; wheat protein; wheat protein, alpha and beta helix of keratin proteins; hair proteins, such as intermediate filament proteins, high-sulfur proteins, ultrahigh-sulfur proteins, intermediate filament-associated proteins, high-tyrosine proteins, high-glycine tyrosine proteins, tricohyalin, and mixtures thereof.

Examples of suitable vitamins nonexclusively include vitamin B complex; including thiamine, nicotinic acid, biotin, pantothenic acid, choline, riboflavin, vitamin B6, vitamin B12, pyridoxine, inositol, carnitine; vitamins A,C,D,E,K and their derivatives such as vitamin A palmitate and pro-vitamins, e.g. (i.e. panthenol (pro vitamin B5) and panthenol triacetate) and mixtures thereof.

Examples of suitable antibacterial agents nonexclusively include bacitracin, erythromycin, neomycin, tetracycline, chlortetracycline, quaternary ammonium agents such as benzethonium chloride and benzalkonium chloride, phenol, and mixtures thereof

Examples of suitable skin emollients and skin moisturizers nonexclusively include mineral oil, lanolin, vegetable oils, isostearyl isostearate, glyceryl laurate, methyl gluceth 10, methyl gluceth 20 chitosan, and mixtures thereof.

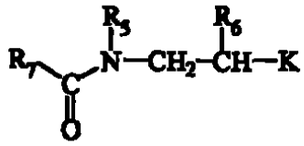
Examples of suitable secondary hair conditioners nonexclusively volatile silicones. When used, the volatile silicone conditioning agent preferably has an atmospheric pressure boiling point less than about 220°C. The volatile silicone conditioner is present in an amount of from about 0 percent to about 3 percent, e.g. from about 0.25 percent to about 2.5 percent or 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, polydimethylcyclosiloxane, hexamethyldisiloxane, cyclomethicone fluids such as polydimethylcyclosiloxane available commercially from Dow Corning Corporation of Midland, Michigan under the tradename, "DC-345" and mixtures thereof.

Examples of suitable hair moisturizers nonexclusively include panthenyl ethyl ether, phytantriol, and mixtures thereof.Examples of sunscreen agents nonexclusively include butyl methoxydibenzoylmethane, octyl methoxycinnamate, oxybenzone, octocrylene, octyl salicylate, phenylbenzimidazole sulfonic acid, ethyl hydroxypropyl aminobenzoate, menthyl anthranilate, aminobenzoic acid, cinoxate, diethanolamine methoxycinnamate, glyceryl aminobenzoate, titanium dioxide, zinc oxide, oxybenzone, padimate o, red petrolatum, and mixtures thereof.

An example of a suitable tanning agent nonexclusively includes dihydroxyacetone.

Examples of skin lightening agents nonexclusively include hydroquinone, catechol and its derivatives, ascorbic acid and its derivatives, and mixtures thereof.

Examples of suitable insecticides (including *insect* repellents, anti-scabies and anti-lice treatments) nonexclusively include permethrin, pyrethrin , piperonyl butoxide, imidacloprid, N,N-diethyl toluamide, which refers to the material containing predominantly the *meta* isomer, i.e., N,N-diethyl-*m*-toluamide, which is also known as DEET; compounds of the formula VIII.



VIII

wherein

R_5 is a branched or unbranched alkyl group having about 1 to about 8 carbon atoms;

R_6 is H, methyl or ethyl;

R_7 is a branched or unbranched alkyl or alkoxy group having from about 1 to about 8 carbon atoms; and

K is a -CN or a $-COOR_6$ group, wherein

R_6 is a branched or unbranched alkyl group having from about 1 to about 8 carbon atoms,

natural or synthetic pyrethroids, whereby the natural pyrethroids are contained in pyrethrum, the extract of the ground flowers of *Chrysanthemum cinerariaefolium* or *C coccineum*; and mixtures thereof. Within the structure of Formula VIII. are ethyl 3-(N-butylacetamido)propionate, wherein R_7 is a CH_3 group, R_8 is an n-butyl group, R_9 is H, K is $COOR_6$ and R_6 is ethyl, which is available commercially from Merck KGaA of Darmstadt, Germany under the name, "Insect Repellent 3535."

An example of an anti fungal for foot preparations nonexclusively includes tolnaftate.

Examples of suitable depilating agents nonexclusively include calcium thioglycolate, magnesium thioglycolate, potassium thioglycolate, strontium thioglycolate, and mixtures thereof.

Examples of suitable external analgesics and local anesthetics nonexclusively include benzocaine, dibucaine, benzyl alcohol, camphor, capsaicin, capsicum, capsicum oleoresin, juniper tar, menthol, methyl nicotinate, methyl salicylate, phenol, resorcinol, turpentine oil, and mixtures thereof.

Examples of suitable antiperspirants and deodorants nonexclusively include aluminium chlorohydrates, aluminium zirconium chlorohydrates, and mixtures thereof.

Examples of suitable counterirritants nonexclusively include camphor, menthol, methyl salicylate, peppermint and clove oils, ichtammol, and mixtures thereof.

An example of a suitable inflammation inhibitor nonexclusively includes hydrocortisone.

Examples of suitable hemorrhoidal products nonexclusively include the anesthetics such as benzocaine, pramoxine hydrochloride, and mixtures thereof; antiseptics such as benzethonium chloride; astringents such as zinc oxide, bismuth subgallate, balsam Peru,

and mixtures thereof; skin protectants such as cod liver oil, vegetable oil, and mixtures thereof.

Examples of suitable make-up preparations nonexclusively include components for lipstick, rouge, blush, eye liner, eyeshadow powder, mascara, face powder, and mixtures thereof.

As used herein, "hair loss treatment agents" shall include agents capable of growing hair and/or agents capable of preventing the loss of hair. By "effective amount," it is meant an amount effective for treating hair loss and may range from, based upon the total weight of the cleansing composition, from about 0.001 percent to about 20 percent, e.g., preferably from about 1 percent to about 5 percent. Examples of benefit agents suitable for treating hair loss include, but are not limited to potassium channel openers or peripheral vasodilators such as minoxidil, diazoxide, and compounds such as N*-cyano-N-(tert-pentyl)-N'-3-pyridinyl-guanidine ("P-1075") as disclosed in United States Patent No.: 5,244,664, which is incorporated herein by reference; vitamins, such as vitamin E and vitamin C, and derivatives thereof such as vitamin E acetate and vitamin C palmitate; hormones, such as erythropoietin, prostaglandins, such as prostaglandin El and prostaglandin F2-alpha; fatty acids, such as oleic acid; diruretics such as spironolactone; heat shock proteins ("HSP"), such as HSP 27 and HSP 72; calcium channel blockers, such as verapamil HCL, nifedipine, and diltiazemamiloride; immunosuppressant drugs, such as cyclosporin and Fk-506; 5 alpha-reductase inhibitors such as finasteride; growth factors such as, EGF, IGF and FGF; transforming growth factor beta; tumor necrosis factor; non-steroidal anti-inflammatory agents such as benoxaprofen; retinoids such as tretinoin; cytokines, such as IL-6, IL-1 alpha, and IL-1 beta; cell adhesion molecules such as ICAM; glucorcorticoids such as betametasone; botanical extracts such as aloe, clove, ginseng, rehmannia, swertia, sweet orange, zanthoxylum, Serenoa repens (saw palmetto), Hypoxis rooperi, stinging nettle, pumpkin seeds, and rye pollen; other botanical extracts including sandlewood, red beet root, chrysanthemum, rosemary, burdock root and other hair growth promoter activators which are disclosed in DE 4330597 which is incorporated by reference in its entirety herein; homeopathic agents such as Kalium Phosphoricum D2, Azadirachta indica D2, and Joborandi Dl; genes for cytokines, growth factors, and male-pattered baldness; antifungals such as ketoconazole and elubiol; antibiotics such as streptomycin; proteins inhibitors such as cycloheximide; acetazolamide; benoxaprofen; cortisone; diltiazem; hexachlorobenzene; hydantoin; nifedipine; penicillamine; phenothalazines; pinacidil; psoralens, verapamil;

zidovudine; alpha-glucosylated rutin having at least one of the following rutins: quercetin, isoquercitrin, hespeddin, naringin, and methylhesperidin, and flavonoids and transglycosidated derivatives thereof which are all disclosed in JP 7002877, which is incorporated by reference in its entirety herein; and mixtures thereof.

Examples of benefit agents suitable for use in inhibiting hair growth include: serine proteases such as trypsin; vitamins such as alpha-tocophenol (vitamin E) and derivatives thereof such as tocophenol acetate and tocophenol palmitate; antineoplastic agents, such as doxorubicin, cyclophosphamide, chlormethine, methotrexate, fluorouracil, vincristine, daunorubicin, bleomycin and hydroxycarbamide; anticoagulants, such as heparin, heparinoids, coumarins, detran and indandiones; antithyroid drugs, such as iodine, thiouracils and carbimazole; lithium and lithium carbonate; interferons, such as interferon alpha, interferon alpha-2a and interferon alpha-2b; retinoids, such as retinol (vitamin A), isotretinoin: glucocorticoids such as betamethasone, and dexamethosone; antihyperlipidaemic drugs, such as triparanol and clofibrate; thallium; mercury; albendazole; allopurinol; amiodarone; amphetamines; androgens; bromocriptine; butyrophenones; carbamazepine; cholestyramine; cimetidine; clofibrate; danazol; desipramine; dixyrazine; ethambutol; etionamide; fluoxetine; gentamicin, gold salts; hydantoins; ibuprofen; imipramine; immunoglobulins; indandiones; indomethacin; intraconazole; levadopa; maprotiline; methysergide; metoprolol; metyrapone; nadolol; nicotinic acid; potassium thiocyanate; propranolol; pyridostimine; salicylates; sulfasalazine; terfenadine; thiamphenicol; thiouracils; trimethadione; troparanol; valproic acid; and mixtures thereof. The composition may contain, based upon the total weight of the composition, from about 0.001 percent to about 20 percent, e.g. from about 0.01 percent to about 5 percent, of a hair growth inhibiting agent.

Examples of suitable anti-aging agents include, but are not limited to inorganic sunscreens such as titanium dioxide and zinc oxide; organic sunscreens such as octyl-methyl cinnamates and derivatives thereof; retinoids; vitamins such as vitamin E, vitamin A, vitamin C, vitamin B, and derivatives thereof such as vitamin E acetate, vitamin C palmitate, and the like; antioxidants including beta carotene, alpha hydroxy acid such as glycolic acid, citric acid, lactic acid, malic acid, mandelic acid, ascorbic acid, alpha-hydroxybutyric acid, alpha-hydroxyisobutyric acid, alpha-hydroxyisocaproic acid, atrolactic acid, alpha-hydroxyisovaleric acid, ethyl pyruvate, galacturonic acid, glucopentonic acid, glucoheptono

1,4-lactone, gluconic acid, gluconolactone, glucuronic acid, glucurronolactone, glycolic acid, isopropyl pyruvate, methyl pyruvate, mucic acid, pyruvia acid, saccharic acid, saccaric acid 1,4-lactone, tartaric acid, and tartronic acid; beta hydroxy acids such as beta-hydroxybutyric acid, beta-phenyl-lactic acid, beta-phenylpyruvic acid; botanical extracts such as green tea, soy, milk thistle, algae, aloe, angelica, bitter orange, coffee, goldthread, grapefruit, hoellen, honeysuckle, Job's tears, lithospermum, mulberry, peony, puerarua, nice, safflower, and mixtures thereof. Suitable amounts of anti-aging agents include, based upon the total weight of the cleansing composition, from about 0.01 percent to about 10 percent, e.g. from about 0.04 percent to about 5 percent.

Examples of suitable anti-acne agents include, but are not limited to topical retinoids (tretinoin, isotretinoin, motretinide, adapalene, tazarotene, azelaic acid, retinol); salicylic acid; benzoyl peroxide; resorcinol; antibiotics such as tetracycline and isomers thereof, erythromycin, and the anti-inflammatory agents such as ibuprofen, naproxen, hetprofen; botanical extracts such as alnus, arnica, artemisia capillaris, asiasarum root, birth, calendula, chamomile, cnidium, comfrey, fennel, galla rhois, hawthrom, houttuynia, hypericum, jujube, kiwi, licorice, magnolia, olive, peppermint, philodendron, salvia, sasa albo-marginata; imidazoles such as ketoconazole and elubiol, and those described in Gollnick, H et al. 196(I) Dermatology Sebaceous Glands, Acne and Related Disorders, 119-157 (1998), which is incorporated by reference herein, and mixtures thereof. Suitable amount of anti-acne agents may be present in an amount, based upon the total weight of the cleansing composition, from about 0.01 percent to about 10 percent, e.g. from about 0.04 percent to about 5 percent.

Suitable effective amounts of depigmentation agents include, based upon the total weight of the cleansing composition, from about 0.01 percent to about 10 percent, e.g. from about 0.04 percent to about 5 percent. Examples of suitable depigmentation agents include, but are not limited to retinoids such as retinol; Kojic acid and its derivatives such as, for example, kojic dipalmitate; hydroquinone and it derivatives such as arbutin; transexamic acid; vitamins such as niacin, vitamin C and its derivatives; azelaic acid; placertia; licorice; extracts such as chamomile and green tea, and mixtures thereof.

As used herein, "dandruff treatment agent," "seborrheic dermatitis treatment agent," or a "psoriasis treatment agent," respectively, shall include agents capable of treating the

symptoms and/or the diseases of dandruff, seborrheic dermatitis, and psoriasis, respectively. By "effective amount," it is meant an amount effective for treating the disease and/or the symptoms associated therewith and preferably may range from, based upon the total weight of the cleansing composition, from about 0.001 percent to about 10 percent, e.g. from about 0.01 percent to about 5 percent. Examples of agents effective in the treatment of dandruff, seborrheic dermatitis, and psoriasis as well as the symptoms associated therewith include, but are not limited to, zinc pyrithione, shale oil and derivatives thereof such as sulfonated shale oil, selenium sulfide, sulfur; salicylic acid; coal tar; povidone-iodine, imidazoles such as ketoconazole, dichlorophenyl imidazolodioxolan, which is commercially available from Janssen Pharmaceutica, N.V., under the tradename, "Elubiol", clotrimazole, itraconazole, miconazole, climbazole, tioconazole, sulconazole, butoconazole, fluconazole, miconazolenitrite and any possible stereo isomers and derivatives thereof such as anthralin; piroctone olamine (Octopirox); selenium sulfide; ciclopirox olamine; anti-psoriasis agents such as vitamin D analogs, e.g. calcipotriol, calcitriol, and tacalcitrol; vitamin A analogs such as esters of vitamin A, e.g. vitamin A palmitate, retinoids, retinols, and retinoic acid; corticosteroids such as hydrocortisone, clobetasone, butyrate, clobetasol propionate and mixtures thereof.

The amount of benefit agent to be combined with the cleansing composition may vary depending upon, for example, the resulting benefit desired and the sensitivity of the user to the benefit agent. Unless otherwise expressed herein, preferably the benefit agent is present in the cleansing composition or delivery system in an amount, based upon the total weight of the cleansing composition, from about 0.001 percent to about 20 percent, e.g. from about 0.001 percent to about 10 percent or from about 0.001 percent to about 5 percent.

The mildness of each benefit agent will depend upon the benefit agent selected and the amount of benefit agent employed. Therefore, in general, in embodiments wherein mildness is of particular concern, the composition may omit the incorporation of a benefit agent or alternatively use low amount thereofs. Similarly, the effect of the benefit agent on foam agent will depend upon the benefit agent selected and the amount of benefit agent employed. Therefore, in general, in embodiments wherein high foaming is of particular concern, the composition may omit the incorporation of a benefit agent or alternatively use low amount thereofs.

The pH of the compositions of this invention will depend upon, for example, the benefit agent selected and the type of product, e.g. shampoo, wash, etc., desired. However, the pH is typically maintained in the range of from about 3 to about 7.5, e.g. from about 5.5 to about 7.0. For shampoo compositions, a pH of from about 5.5 to about 7.5 is typically used. Compositions of this invention having a pH from about 3 to about 5 are useful for delivering many skin care benefit agents, which include but are not limited to alpha and beta hydroxy acids such as salicylic acid, glycolic acid, lactic acid, and mixtures thereof, to the skin. Compositions having a pH of about 7 or higher are useful for delivering quaternary antibacterial agents such as benzalkonium chloride and benzethonium chloride to the skin.

The above described 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 via 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.

The compositions of the present invention are preferably used in shampoos, washes, baths, gels, lotions, creams, and the like for cleansing purposes. In one embodiment, the composition may be incorporated into a bath fizz ball, such as those described in U.S. Patent Nos. 4,850,681; 4,686,707; and 4,002,758; which are incorporated herein by reference.

The composition of the present invention may be used on the body in conjunction with any personal cleansing implement known in the art such as a wipe, a washcloth, a mesh or apertured film, pouf, sponge, brush and the like. In one embodiment, the composition may be marketed together with one or more of such implements in a kit. The implements may be loaded with appropriate skin care compositions and packaged as a wet implement, such as wet wipes. The composition of the present invention may be loaded onto the implement by

dipping the implement in the composition, by spraying the composition onto the implement, and other means known in the art

Alternatively, the wet implement may be dried through the use of heating equipment, vacuum driers, or other means known in the art to provide a dry implement, such as dry wipes. Alternatively, the composition of the present invention may be applied in the form of a concentrate to the implement in order to provide a dry article. These dry articles may then be sold dry with the intent that the consumer will consequently wet the article with water when ready for use.

The compositions of the present invention have a low degree of ocular irritancy. By "low degree of ocular irritancy" it is meant that the composition is not more irritating to eyes than pure sterile water.

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.

Examples

The following test method is used in the below Examples:

Human Ocular Irritancy Test: This is a double-blinded, randomized, two (2) cell study, with test materials being applied once. The test material, which is a 10% dilution of a test sample having a temperature of 37-38°C, is instilled in one eye and sterile purified water is installed in the other eye of each panelist. Ten (10) panelists are required to complete the study.

Following the randomized order of testing the panelists and of assigning which material to instill and into which eye that material shall be instilled, one (1) drop of the appropriate test material is instilled into the first eye of the panelist followed by instillation of the sterile water into the second eye. A new sterile disposable eyedropper is used for each test material and disposed of after being used on only one panelist's eye. All instillations are performed either by an investigator or by a trained technician. For each eye, an independent tissue is used

to blot any lacrimation that falls from that respective eye. Within 30 seconds, or as closely as possible following instillation, panelists are asked to grade stinging sensation to their eyes utilizing the following criteria: 0 = within normal limits;1 = mild, very slight, 2 = moderate, and 3 = severe. At ¼ hour and 1 hour post-instillation, panelists are again asked to grade stinging sensation to eyes.

Example 1: Preparation of Cleansing Compositions

Three independent sample formulations were prepared utilizing the materials listed in Table 1:

Table 1

CTFA NAME	#1*	#2*	#3*	#4*
Decyl Glucoside	3.0	3.0	3.0	3.6
Cocamidopropylbetaine	3.0	6.0	-	4.7
Disodium Lauroamphodiacetate	3.0	-	6.0	0.7

* expressed in terms of weight percentage

Each of the samples was independently prepared by adding the appropriate parts of active surfactant to water such that the resultant quantity equals 100 parts. Each solution was then stirred until a homogenous, clear solution was obtained.

Foam stability evaluation was accomplished using an Airspray® mini-foamer 0.4cc pump. The pump is capable of extruding a constant volume of liquid and allowing it to mix with air, which therefore creates enough energy to yield a foam. With time, the foam eventually breaks down. However, a dense, stable foam will retain its foam structure for longer periods of time than a loose, unstable foam. The procedure for using this foam test was as follows:

1) Each sample was inserted into an independent mini foamer, which was then pumped with 1 stroke onto a porous substrate that allowed for wicking and draining of the liquid.
2) An initial, visual foam assessment was made on the pumped sample, based upon a scale of 1-10. A rating of "10" indicated a very dense, creamy, high quality foam while a "1" indicated a fully drained, foam remnant.
3) Periodic assessments were made of the pumped sample while the foam gradually degraded.

The results are reported in Table 2.

Table 2

Time (minutes)	#1	#2	#3	#4
1	10	10	10	10
2	10	9	9	10
3	10	7	7	9
4	10	3	2	9
5	8	1	1	7
10	8	1	1	7
14	6	1	1	4
15	4	1	1	2

As can be seen from the data above, the compositions of the present invention provided a long lasting stable foam that was dense, creamy, and of high quality. In particular, as shown in Samples 1 and 4, the stable foam retained its approximate initial foam height and quality, i.e. stayed white/pastel in color, was very dense, and did not degrade, for a time longer than about 3 minutes, and such stable foam lasted over twice as long as that produced by comparative cleansers.

Example 2: Preparation of Cleansing Composition with Conditioner

A moisturizing cleansing composition was prepared according to the materials and amounts listed in Table 3 as follows:

Table 3

Tradename / Supplier	INCI Name	%w/w
Plantaren 2000 from Cognis Corporation	Decyl Glucoside	6.0
Lamesoft P065 from Cognis Corporation		3.00
	Water	1.05
	Coco glucoside	1.05
	Glyceryl oleate	0.9
PEG 6000 DS from Stepan Company	PEG 150 distearate	1.4
Atlas G4280 from Uniqema	POE 80 sorbitan laurate	5.0
Water	Deionized water	59.67
Polymer JR from Amerchol Corporation	Polyquaternium 10	0.12
Glucquat 125 from Amerchol Corporation	Lauryl methyl gluceth-10/hydroxypropyldi-monium chloride	1.00
Tegobetaine L-7 (30%) from Goldschmidt Chemical Corporation	Cocamidopropyl betaine	12.00
Monateric 949J from Uniqema	Disodium lauroamphodiacetate	2.00
Polyox WSR-205 from Amerchol	PEG 14-M	0.10

After the resulting mixture was cooled to a temperature of about 40 °C, the following components were added thereto sequentially, and the solution was homogeneous before the addition of each subsequent component: fragrance/POE-80 sorbitan laurate premixture, quaternium-15, tetrasodium EDTA, glycol distearate, and laureth - 4. After sodium chloride was added thereto, the pH of the resulting solution was adjusted with citric acid to about 6.8. The remaining water was added thereto with stirring until the final solution was homogeneous. The viscosity of the resulting solution was 1300 cps as measured by a Brookfield DV-I+ Viscometer using a # 2 spindle and speed of 6 rpm.

Example 3: Ocular Irritancy Test

The human ocular sting test was performed utilizing the composition produced in accordance with Example 2. The results of the study are shown in Table 4.

Table 4

Sample	Stinging To Eye Score
Composition of Example 2	0
sterile purified water	0

This Example shows that the compositions of this invention were found to be no more stinging to the eyes than sterile purified water.

We Claim:

1. A cleansing composition
comprising:
at least one glycoside nonionic surfactant;
at least one betaine surfactant; and
at least one amphoteric surfactant, wherein the composition is substantially free of anionic surfactants.

2. The composition of claim 1 wherein the composition possesses a low degree of ocular irritancy and yields a long-lasting stable foam.

3. The composition according to claim 1 wherein the glycoside nonionic surfactant is selected from coco glucoside, octyl glucoside, decyl glucoside, lauryl glucoside, and mixtures thereof.

4. The composition according to claim 3 wherein the amount of glycoside nonionic surfactant ranges from about 0.1% to about 20% by weight, based on the total weight of the composition.

5. The composition according to claim 3 wherein the amount of glycoside nonionic surfactant ranges from about 0.5% to about 15 % by weight, based on the total weight of the composition.

6. The composition according to claim 3 wherein the amount of glycoside nonionic surfactant ranges from about 1% to about 10 % by weight, based on the total weight of the composition.

7. The composition according to claim 1 wherein the betaine surfactant is selected from the group consisting of alkyl betaines, alkyl sultaines, amidoalkyl betaines, amidoalkylsultaine, and mixtures thereof, wherein the alkyl group contains from about C_8 to about C_{22} carbon atoms.

8. The composition according to claim 7 wherein the betaine surfactant is decyl betaine, lauryl hydroxysultaine, oleamidopropylhydroxysultaine, cocamidopropylbetaine, and mixtures thereof.

9. The composition according to claim 7 wherein the amount of betaine surfactant ranges from about 0.1% to about 20% by weight, based on the total weight of the composition.

10. The composition according to claim 7 wherein the amount of betaine surfactant ranges from about 0.5% to about 15 % by weight, based on the total weight of the composition.

11. The composition according to claim 1 wherein the amphoteric surfactant is selected from the group consisting of amphocarboxylates, alkylamidoalkylamines, alkyl substituted amino acids, amphophosphates, carboxyalkyl alkyl polyamines, and mixtures thereof, wherein the alkyl group contains from about C_8 to about C_{22} carbon atoms.

12. The composition according to claim 11, wherein the amphoteric surfactants are selected from the group consisting of lauroamphodiacetate, lauriminodipropionate, cocoamphopropionate, lauroamphodipropionic acid, caprylcamphohydroxypropylsulfonate, and mixtures thereof.

13. The composition according to claim 11 wherein the amount of amphoteric surfactant ranges from about 0.1% to about 20% by weight, based on the total weight of the composition.

14. The composition according to claim 11 wherein the amount of amphoteric surfactant ranges from about 0.5% to about 15 % by weight, based on the total weight of the composition.

15. The composition according to claim 13 wherein the amount of amphoteric surfactant ranges from about 1% to about 10 % by weight, based on the total weight of the composition.

16. The composition according to claim 1 wherein the glycoside nonionic surfactant is decyl glucoside and ranges from about 1% to about 10 % by weight, based on the total weight of the composition; the betaine surfactant is cocamidopropylbetaine and ranges from about 1% to about 10 % by weight, based on the total weight of the composition; and the amphoteric surfactant is lauroamphodiacetate and ranges from about 1% to about 10 % by weight, based on the total weight of the composition.

17. The composition according to claim 1 wherein the ratio of the glycoside nonionic surfactant to the sum of the amounts of the amphoteric surfactant and the betaine surfactant ranges from about 1 to 4 to about 1.5 to 1.

18. The composition according to claim 1 wherein the ratio of the amount of the betaine surfactant to the amount of the amphoteric surfactant ranges from about 1 to 2 to about 10 to 1.

19. The composition according to claim 1 wherein the ratio of the amount of the glycoside nonionic surfactant to betaine surfactant to amphoteric surfactant ranges from about 1 : 1.3 : 2.66 to about 16.5 : 10 : 1.

20. The composition of claim 1 further comprising from about 0.01 percent to about 5 percent of a cationic conditioning polymer; from about 0.1 percent to about 5 percent of an emollient selected from the group consisting of a diester, a triester, or a mixture thereof; and from about 0.1 percent to about 10 percent of a monoester emollient.

21. The composition of claim 1 further comprising a benefit agent.

22. The composition of claim 21, wherein the benefit agent is selected from the group consisting of salicylic acid, lactic acid, glycolic acid, and mixtures thereof.

23. The composition of claim 21, wherein the benefit agent is selected from the group consisting of benzethonium chloride, benzalkonium chloride, and mixtures thereof.

24. The use of the composition of claim 1 with an implement selected from the group consisting of a wipe, a washcloth, a mesh or apertured film, pouf, sponge, and a brush.

25. A kit comprised of the composition of claim 1 and an implement selected from the group consisting of a wipe, a washcloth, a mesh or apertured film, pouf, sponge, and a brush.

26. The kit of claim 25 wherein the composition possesses a low degree of ocular irritancy and yields a long-lasting stable foam.

Abstract Of The Disclosure

A mild cleansing composition that produces a stable foam containing at least one glycoside nonionic surfactant; at least one betaine surfactant; and at least one amphoteric surfactant, is disclosed. The composition is substantially free of anionic surfactant.

Please type a plus sign (+) inside this box [+]

PTO/SB/01 (10-00)
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DECLARATION AND POWER OF ATTORNEY FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)		
☐ Declaration Submitted with Initial Filing OR ☒ Declaration Submitted after Initial Filing (Surcharge (37 CFR 1.16(e)) required)	Attorney Docket Number	JBP-568
	First Named Inventor	BOOKER Gregory, et al.
	COMPLETE IF KNOWN	
	Application Number	
	Filing Date	
	Group Art Unit	
	Examiner Name	

As a below named inventor, I hereby declare that:

My residence, mailing 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:

MILD CLEANSING COMPOSITION HAVING STABLE FOAM
(Title of the Invention)

the specification of which

☐ is attached hereto

OR

☒ was filed on (MM/DD/YYYY) 09/17/2001 as Attorney Docket No. JBP-568.

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

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 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 any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? YES	NO
			☐	☐	☐

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

09955335 091701

DECLARATION - Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	
		☐ Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

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
09/931,703	16 August 2001	Pending

I hereby appoint:

☒ Practitioners at Customer Number: 00862777 →

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as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Address all telephone calls to Michele G. Mangini at telephone number (732) 524-2810.

Direct all correspondence to: ☒ Customer Number or Bar Code Label 00862777 OR ☐ Correspondence address below

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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 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.			
NAME OF SOLE OR FIRST INVENTOR:	☐ A petition has been filed for this unsigned inventor		
Given Name (first and middle [if any]) Gregory	Family Name or Surname BOOKER		
Inventor's Signature	Date		
Residence: City Philadelphia	State PA	Country U.S.A.	Citizenship U.S.A.
Mailing Address 2913 Swain Street			
City Philadelphia	State PA	ZIP 19130	Country U.S.A.
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 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.			
NAME OF SECOND INVENTOR:	☐ A petition has been filed for this unsigned inventor		
Given Name (first and middle [if any]) Joseph J.	Family Name or Surname LIBRIZZI		
Inventor's Signature	Date		
Residence: City Nesharic	State NJ	Country U.S.A.	Citizenship U.S.A.
Mailing Address 19 Norz Drive			
City Nesharic	State NJ	ZIP 08063	Country U.S.A.
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NAME OF THIRD INVENTOR:	☐ A petition has been filed for this unsigned inventor		
Given Name (first and middle [if any])	Family Name or Surname		
Inventor's Signature	Date		
Residence: City	State	Country	Citizenship
Mailing Address			
City	State	ZIP	Country

2do. EXAMEN DE FORMA PATENTE DE INVENCION

Folio 186

Radicación no 02-071964

Concepto Técnico no 190
Clasificación Internacional de Patentes: A61K 7/00

Practicado el examen de acuerdo a lo establecido en el Art. 38 de la Decisión 486 se determinó que esta solicitud de Patente de Invención:

SI [x] NO [ ] Contiene un resumen de la invención (Art.26-e).

SI [x] NO [ ] Contiene el título o nombre de la invención (Art.27-d).

SI [x] NO [ ] Contiene la descripción de la invención (Art.26-b).

SI [ ] NO [ ] NO ES APLICABLE [x] Contiene los dibujos necesarios para comprender la invención (Art.26-d)

SI [x] NO [ ] Contiene una o más reivindicaciones. (Art.26-c).

SI [ ] NO [ ] NO ES APLICABLE [x] Han sido desarrollados los productos y/o procedimientos a partir de recursos genéticos o de sus productos derivados de los que cualquiera de los Países Miembros es país de origen. (Art. 26- h).

SI [ ] NO [ ] NO ES APLICABLE [x] Los productos y/o procedimientos han sido obtenidos o desarrollados a partir de los conocimientos tradicionales de las comunidades indígenas, afro americanas, o locales de los países miembros, de acuerdo a lo establecido en la Decisión 391 y sus modificaciones y reglamentaciones vigentes.(Art.26-i).

SI [ ] NO [x] La invención se refiere a un producto relativo a un material biológico. (Art.26-j).

SI [x] NO [ ] NO ES APLICABLE [ ] La prioridad coincide con la materia reivindicada.

SI [x] NO [ ] CUMPLE LOS REQUISITOS TÉCNICOS

OBSERVACIONES Y OTROS: SI [ ] NO [X] ver hoja(s) anexa(s)

EXAMINADOR TÉCNICO
202060

Bogotá D. C., Febrero 11 de 2004