



No. 06-073817- -00003-0000

Fecha: 2010-05-27 17:30:37 Dep. 2020 DIR.NUEVASCR
Tra. 11 PATENTEIYII Eve: 378 FASENACIONALI
Act. 444 RESPUESTAREQUE Folios: 4

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JEFE DE DIVISIÓN DE NUEVAS CREACIONES

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

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REF: Expediente No. 06 073 817 – solicitud de patente de invención a favor
de COLGATE PALMOLIVE COMPANY

Respuesta al oficio No. 2654 del 26 de febrero de 2010

JUAN PABLO CADENA SARMIENTO, portador de la tarjeta profesional No. 57.492 del C.S.J., obrando como apoderado de la sociedad COLGATE PALMOLIVE COMPANY, según lo acredita el documento de poder presentado ante esa División me permito dar respuesta a las observaciones de carácter técnico y jurídico, relacionadas con la patentabilidad, para la concesión de la patente de acuerdo con la Decisión 486 según el concepto técnico No. 4484 notificado por fijación en lista de fecha 26 de febrero de 2010.

Con el ánimo de subsanar las objeciones realizadas por el Señor Examinador, adjuntamos un nuevo capítulo reivindicatorio de 1-7 reivindicaciones que superan dichas objeciones, sin ampliar en ningún momento la materia inicialmente divulgada y encontrando entero sustento en la descripción. Con el mismo objetivo, presentamos los siguientes argumentos en referencia a la claridad de la presente solicitud, a partir de los comentarios realizados por el Señor Examinador a este respecto.

El objeto de la invención es el desarrollo de una composición detergente en donde se logre una potencialización de su efecto blanqueador. Vale la pena resaltar que esto se logra únicamente mediante la combinación específica de los componentes y sus proporciones tal como se reivindica. De esta manera,

de acuerdo con el comentario del Señor Examinador, donde afirma que es necesario especificar los compuestos tensoactivos que forman parte de la composición, consideramos que esto no es necesario dado el concepto inventivo de la solicitud. Por el contrario, los surfactantes presentes en las reivindicaciones, en combinación con los demás componentes, logran alcanzar la potencialización del efecto blanqueador de la composición global en todos los casos. Entonces consideramos que no es necesario limitar el alcance del concepto inventivo, ya que todos estos surfactantes, dentro de la composición reclamada, se convierten en una composición detergente con efecto blanqueador superior. Por esta razón, consideramos que no es necesario realizar una restricción a los surfactantes encontrados dentro de la composición detergente reivindicada.

Continuando con las objeciones del Señor Examinador, en particular en cuanto a la aclaración de si el acetato de sodio trihidratado forma parte de la composición, consideramos que, a partir del nuevo capítulo reivindicatorio presentado, queda claro que este compuesto solo es incluido dentro de la misma en una modalidad donde la composición se encuentre en forma de detergente en polvo, funcionando así como una partícula portadora. De acuerdo con esto, consideramos que esta objeción se subsana de manera adecuada.

Ahora en cuanto a la definición del colorante polimérico violeta, no existe una descripción del mismo, por parte del proveedor, diferente a su absorción de longitud de onda y su nivel de solubilidad en agua. Por esta razón, de acuerdo a toda la información contenida en la descripción, consideramos que una persona entrenada en el arte estaría en plena capacidad de identificar dicho componente, y por ende su definición es adecuada.

Finalmente, es preciso resaltar que la presente solicitud, a diferencia de la posición del Señor Examinador, guarda unidad de invención ya que corresponde a un único concepto inventivo. Como se mencionó anteriormente, la selección de un surfactante específico es irrelevante dentro del efecto blanqueador que logra el compuesto polimérico violeta dentro de cualquier composición detergente, por lo que consideramos que este

requisito de cumple a cabalidad. Sin embargo, resulta importante indicar al Señor Examinador que el solicitante se encontraría dispuesto a realizar modificaciones adicionales a la solicitud, siempre y cuando se ejecute el examen de los requisitos de patentabilidad, novedad y nivel inventivo, bajo el concepto inventivo mencionado. Por esta razón, respetuosamente solicitamos que dicha evaluación se ejecute, ya que solo mediante esta retroalimentación es posible llegar a posibles futuras modificaciones que sean adecuadas para el cumplimiento de los requisitos de patentabilidad y al mismo tiempo vayan acordes al alcance de la invención.

En vista de lo anteriormente expuesto, respetuosamente solicitamos el retiro de las objeciones a la presente solicitud y la concesión del privilegio solicitado, ya que en opinión del solicitante cumple con todos los requisitos establecidos en la decisión 486.

De la señora Jefe,



JUAN PABLO CADENA SARMIENTO

C.C. No. 80.410.337 de Usaquén

T.P. No. 57492 del C.S.J.

Calle 70A No. 4-41

Bogotá, 21 de mayo de 2010

MXB/NFA

Anexo

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REIVINDICACIONES

1. Una composición detergente de lavandería que comprende:
 - (a) Un surfactante aniónico o no iónico o mezclas de los mismos;
 - (b) Un colorante polimérico violeta que tiene una longitud de onda de absorción de 540-560 nm y una solubilidad en agua de 1-20.5 g/L, en donde la dosis de colorante en dicha composición es desde 0.006% hasta 1.75%, en donde si el detergente de lavandería es un detergente en polvo, el colorante polimérico violeta está presente en una partícula portadora; y
 - (c) Un constructor
2. La composición de acuerdo a la reivindicación 1, en donde la dosis está entre 0.015% y 0.15%.
3. La composición de acuerdo a la reivindicación 1, en donde el colorante se deposita en una partícula portadora que comprende acetato de sodio trihidrato, y la composición es una composición en polvo.
4. La composición de acuerdo a la reivindicación 1, libre de partículas de fosfato vítreo.
5. La composición de acuerdo a la reivindicación 1, en donde el constructor es un carbonato de metal alcalino, un fosfato, o una zeolita de tipo A de aluminosilicato.
6. La composición de acuerdo a la reivindicación 1, que además comprende sulfato de sodio.
7. Un método que comprende poner en contacto telas de lavandería con un baño acuoso que comprende la composición de la reivindicación 1.

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**SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES**

2020

Bogotá, D.C, 8 de Julio del 2010

Doctor

Juan Pablo Cadena Sarmiento
Apoderado

Oficio No. **08974**

REFERENCIA: Radicación No. 06-73817

Trámite 002

Evento 001

Actuación 430

Folios 002

Como resultado del examen de fondo, realizado con fundamento en el artículo 46 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica:

1.DEL ARTICULO 46

Artículo 46. De ser necesario, a efectos del examen de patentabilidad y a requerimiento de la oficina nacional competente, el solicitante proporcionará, en un plazo que no excederá de 3 meses, uno o más de los siguientes documentos relativos a una o más de las solicitudes extranjeras referidas total o parcialmente a la misma invención que se examina:

- a) copia de la solicitud extranjera;
- b) copia de los resultados de exámenes de novedad o de patentabilidad efectuados respecto a esa solicitud extranjera;
- c) copia de la patente u otro título de protección que se hubiese concedido con base en esa solicitud extranjera;
- d) copia de cualquier resolución o fallo por el cual se hubiese rechazado o denegado la solicitud extranjera; o
- e) copia de cualquier resolución o fallo por el cual se hubiese anulado o invalidado la patente u otro título de protección concedido con base en la solicitud extranjera.

La oficina nacional competente podrá reconocer los resultados de los exámenes referidos en el literal b) como suficientes para acreditar el cumplimiento de las condiciones de patentabilidad de la invención.

Si el solicitante no presentara los documentos requeridos dentro del plazo señalado en el presente artículo la oficina nacional competente denegará la patente.

DE LA SOLICITUD PCT

El solicitante presentó una solicitud de acuerdo al Tratado de Cooperación en Patentes PCT (Patente Cooperation Treaty); donde se reivindica prioridad del mismo documento citado para Colombia. Dicha solicitud corresponde a la publicación US 10/752.344 del 6 de Enero de 2004. Dicha solicitud fue tramitada y se procedió a su examen al respecto de lo cual existen documentos relativos al reporte de búsqueda y resultado del examen.

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3. DE LA SOLICITUD DE LA OFICINA

A efectos del examen de patentabilidad y como requerimiento de esta oficina, se solicita proporcionar, en un plazo que no exceda de 3 meses, los siguientes documentos relativos a la solicitud extranjera correspondiente a la misma invención que se examina:

a) El siguiente documento que afectan la patentabilidad y se encuentra reportado en el correspondiente informe de búsqueda:

1- RESEARCH DISCLOSURE 15334. January 1977 (1977-01) pag. 35-36.
XP 002018087. Havant. GB.

En cumplimiento del artículo 46 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe proporcionar éstos documentos, en un plazo que no excederá de tres meses, a partir a partir de la fecha de la notificación de la presente comunicación. Si el solicitante no presentara los documentos requeridos dentro del plazo señalado, la oficina nacional competente denegará la patente.

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


ALIX CÉSPEDES DE VERGEL
Directora de Nuevas Creaciones (C).

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

16 JUL. 2010

CONCEPTO TÉCNICO No. 2451	EXAMINADOR TÉCNICO Código 202064
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**SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISIÓN DE NUEVAS CREACIONES**

2020

Bogotá, D.C., (9 de Julio del 2010)

Abogado

Juan Pablo Cadena Sarmiento

Solicitante: COLGATE-PALMOLIVE S.A.

ASUNTO

Radicación 06-73817

Trámite 002

Evento 001

Actuación 430

Oficio 08973

Folios 003

Patente de Invención

☒

Patente de Modelo de Utilidad

☐

Vía Nacional

☐

Vía PCT (fase nacional)

☒

Cap. I

☒

Cap. II

☐

No. Sol. Internacional

PCT/US20025/000261

Fecha de Presentación Internal.

5 de Enero del 2005

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

1. Documentos estudiados

1.1. Descripción: Folios: 17 a 24

1.2. Reivindicaciones: Folio: 25 (capítulo reivindicatorio original)

Folio: 63 (capítulo reivindicatorio modificado)

1.3. Prioridad: 6 de Enero del 2004, Estados Unidos, No. Solicitud.
10/752.344

2. Análisis de la Prioridad

Se comparó el contenido del documento reivindicado como prioridad con la materia contenida en la solicitud y se encontró que esta coincidía, por lo tanto la prioridad es aceptada.

3. Objeto de la invención

- *Título de la solicitud: " Composición detergente para lavandería que contiene un colorante violeta".*

El objeto de la presente solicitud de patente de invención consiste en:

Reivindicaciones 1– 6: Se reivindica una composición detergente de lavandería para proporcionar beneficios de blancura mejorada para la ropa lavada que incluye: a) un agente tensoactivo o mezcla de agentes tensoactivos seleccionados del grupo que consiste de agentes tensoactivos aniónicos y no iónicos y b) un colorante polimérico violeta que tiene un absorción de longitud de onda de 540 a 560 nm; una solubilidad en agua de aproximadamente 1 g/L a 20,5 g/L.

Reivindicación 7: Un método que comprende poner en contacto telas de lavandería con un baño acuoso que comprende la composición de la reivindicación 1.

El solicitante presenta el siguiente objeto de la solicitud: "Esta invención esta relacionada con composiciones detergentes para lavandería las cuales proporcionan beneficios mejorados de blanqueo para la ropa lavada. Más particularmente, esta invención está relacionada con composiciones detergentes para lavandería que contienen un colorante violeta el cual refleja la luz violeta y el cual se puede depositar sobre la superficie de telas lavadas para proporcionar un efecto o beneficio de blanqueo".

- *Clasificación Internacional de Patentes (IPC.): C11D 3/40*

4. De la solicitud de Patente

4.1. Reivindicaciones (artículo 30 D 486)

A pesar de las modificaciones realizadas a la solicitud esta sigue presentando las siguientes falencias: No se especifican los compuestos que se encuentran conformando los surfactantes aniónicos y no iónicos, no se especifica el compuesto o compuestos químicos que representan al "colorante polimérico violeta".

El método presentado en la reivindicación 7 implícitamente esta presentando el uso de la composición, por lo que esta reivindicación debe eliminarse del capítulo reivindicatorio ya que la Decisión 486 no contempla los usos como materia a patentar.

De acuerdo lo anterior la solicitud no cumple con los requisitos de claridad y concisión estipulados en art. 30 de la Decisión 486.y/o art.22 Tratado PCT.

5. Determinación del Estado de la Técnica

La fecha que se ha tenido en cuenta para determinar el Estado de la Técnica es la fecha de presentación de la solicitud prioritaria la cual corresponde al 6 de enero del 2001.Teniendo en cuenta la fecha indicada se realizó la búsqueda en el estado de la técnica de documentos relacionados con la solicitud encontrándose los siguientes documentos más relevantes:

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Nº	Documento	Título	Fecha de publicación
D1	US 5726145	Color perfume concentrates	10 de marzo de 1998

6. Análisis de patentabilidad (artículo 14 D486)

6.1. Nivel inventivo (artículo 18 D486)

En la anterioridad D1 se esta presentando una composición concentrada de color y perfume la cual se puede adicionar a cualquier composición líquida de limpieza. La composición presentada en la anterioridad D1 contienen: a) 0,01% a 85% de un colorante polimérico conocido comercialmente como Liquitin® el cual es manufacturado por Milliken, b) 15% a 99% de un perfume y c) 0 a 99% de un surfactante no iónico o un compuesto del tipo glicerol etoxilado.

De acuerdo a la composición que se presenta en la solicitud, es posible establecer que se tiene en común el colorante polimérico así como el surfactante; por lo que para una persona de nivel medio en la materia es posible derivar a partir de la anterioridad presentada la composición de la solicitud; ya que el único componente que no se encontraría en la composición de la solicitud sería el constructor pero este ingrediente es un aditivo de formulación cuya inclusión no se considera un salto cualitativo con respecto a la composición presentada en la solicitud.

De otra parte, tal como lo afirma el solicitante en el memorial de respuesta: "El objeto de la invención es el desarrollo de una composición detergente en donde se logre una potencialización de su efecto blanqueador. Vale la pena resaltar que esto se logra únicamente mediante la combinación específica de los componentes y sus proporciones tal como se reivindica"; de esta manera al tener los mismos ingredientes de la composición de la anterioridad es posible establecer el efecto que se desea, en este caso el blanqueamiento de telas blancas.

De acuerdo a lo anterior la solicitud carece de Nivel Inventivo ya que la composición de la solicitud es posible derivarla de la anterioridad D1 que es el estado de la técnica más cercano.

7. Conclusión:

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

Nº	Documento Nº	Reivindicaciones afectadas	Requisito que afecta
D1	US 5726145	1 a 7	Nivel Inventivo

8. Respuesta a los argumentos del solicitante:

El solicitante en su memorial de respuesta presenta indica que no hay necesidad de especificar los compuesto tensoactivos ya que precisamente al combinar el colorante con cualquier surfactante se aprecia un efecto; de esta misma manera se presenta la composición de la anterioridad D1 por lo que no se evidencia una altura inventiva de la solicitud con respecto al arte previo.

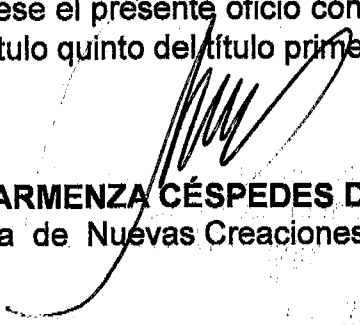
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Tal como se presenta en el capítulo descriptivo de la solicitud el colorante polimérico violeta es el mismo producto comercial utilizado en la composición de la anterioridad D1.

Con las aclaraciones realizadas por el solicitante, esta oficina da por superada la falta de Unidad de Invención de la solicitud que se habría presentado en el concepto técnico No.4484.

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

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única N° 10 de 2001.


ALIX CARMENZA CÉSPEDES DE VERGEL
Directora de Nuevas Creaciones (C).

El anterior requerimiento fue notificado por fijación en lista, de fecha
16 JUL. 2010

CONCEPTO TÉCNICO No. 2452	EXAMINADOR TÉCNICO Código No.202064
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5,726,145

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COLOR PERFUME CONCENTRATES

FIELD OF THE INVENTION

The present invention relates to a liquid color/perfume concentrate containing a colorant and a perfume with a liquid cleaning composition.

BACKGROUND OF THE INVENTION

Over the last thirty years, all purpose cleaners have been continuously improved to increase both efficacy and consumer convenience. This way, they moved from powder form to liquid form, then from traditional emulsions to eventually microemulsions. Significant progress was also achieved in tailoring the surfactants, reducing builders, allowing superior cleaning performance without the drawback of residues, too much foaming or harshness to both surfaces and skin.

These progresses resulted in offering to consumer more satisfaction in their cleaning task. In parallel to that, the "perfuming" function, initially inexistant, was progressively developed, first to cover the base odor, then to further deliver a nice pleasant odor during and after cleaning. The "perfume" attribute therefore became more and more important to consumers aside the "performance" attributes. A logical result of this trend is that an increased number of perfume variants are offered in the market place to satisfy consumers choice. Indeed, one can observe that the more perfume variants offered, the higher market shares. The drawback of this approach of more perfume variants for the same APC (all purpose cleaning) brand is an increased cost through an increased number of SKU's, an important reference cost when introducing a new variant, as well as additional production/warehousing costs.

An approach to offer a large range of perfume variants, while even decreasing the number of references, would be to propose the principle of "consumer postdifferentiation", i.e. selling on one hand the base formula—perfume and color free—and on the other hand, perfume dose to be postadded to the base formula at consumer stage.

This approach has never been proposed for APC products, as a real commercial product in the APC business. The potential reason is that in an APC product, two main difficulties have to be solved to ensure an easy consumer "postdifferentiation". Indeed, in most of the cases, traditional APC emulsions do not allow postaddition of perfume without either bringing minimum energy to the system to incorporate perfume in the base product, or at least adding a significant amount of perfume solubilizers in the base product; furthermore, in the case of "perfume dose" approach, the "perfume dose" should preferably contain both perfume AND DYE to "identify" each perfume variants. Unfortunately, most of the dyes commonly used to color APC products are hydrosoluble and therefore incompatible with perfume.

The objective of this invention is to make and/or commercialize APC multiperfume variants through the combination of "colored perfume doses" to be postadded to APC base product as well as the relevant process/formula to obtain easy to make "final" product.

SUMMARY OF THE INVENTION

The present invention relates to color/perfume concentrates containing a perfume which can be added to a liquid cleaning composition such as a light duty liquid cleaning composition, a microemulsion cleaning composition, an all

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purpose cleaning composition, a fabric care composition, a body care composition, a body cleaning composition or a shampoo composition.

The color/perfume concentrate comprises by weight:

- (a) 0.01% to 85%, more preferably 0.01% to 50% of at least one polymeric dye such as Liquitint® manufactured by Milliken;
- (b) 15% to 99.99% g more preferably 50% to 99.99% of a perfume; and
- (c) 0 to 99% a nonionic surfactant or an ethoxylated glycerol type compound.

The cleaning composition can be mixed with the color/perfume concentrate in any desired weight ratio, preferably about 0.01 to 90, more preferably about 0.5 to about 5. This permits the end user to design a liquid cleaning composition that has a particular color and a particular smell that is pleasing to his senses.

The present invention also relates to a process which comprises the step of mixing the color/perfume concentrate with the liquid cleaning composition. For example, the color/perfume concentrate can be packaged in preselected unit dosages which can be added to the liquid cleaning composition contained in a separate package. After the addition of the color/perfume concentrate to the cleaning composition, the user shakes the liquid cleaning composition containing the color/perfume concentrate until uniform mixing has been achieved.

DETAILED DESCRIPTION OF THE INVENTION

The present invention relates to color/perfume concentrate compositions which comprise by weight:

- (a) 0.01% to 85%, more preferably 0.01% to 50% of at least one polymeric dye such as Liquitint® manufactured by Milliken;
- (b) 15% to 99.99%, more preferably 50% to 99.99% of a perfume; and
- (c) 0 to 99.99% a nonionic surfactant or an ethoxylated glycerol type compound.

The color/perfume concentrates containing a perfume which can be added to a liquid cleaning composition such as a light duty liquid cleaning composition, a microemulsion cleaning composition, an all purpose cleaning composition, a fabric care composition, a body care composition, a body cleaning composition or a shampoo composition.

The polymeric dye employed in the instant color/perfume concentrate compositions are water soluble and oil miscible. These dyes are polymer bound azo dye colorant which are nonionic in character manufactured by Milliken Chemical under the branch name of Liquitint®. The available liquid dyes are lemon yellow, reddish tint yellow, amber color, bright blue, reddish blue, royal blue, violet, orange, bluish red, medium red, bright pink, grass green, blue-green, and medium green. Obviously, more than one liquitint dye can be added to the instant color concentrate to form other colors than those previously identified.

The term "perfume" which is used in the color/perfume concentrate is used in its ordinary sense to refer to and include any non-water soluble fragrant substance or mixture of substances including natural (i.e., obtained by extraction of flower, herb, blossom or plant), artificial (i.e., mixture of natural oils or oil constituents) and synthetically produced substance) odoriferous substances. Typically, perfumes are complex mixtures of blends of various organic compounds such as alcohols, aldehydes, ethers, ketones, aromatic compounds and varying amounts of essential oils (e.g., terpenes)

such as from 0% to 80%, usually from 10% to 70% by weight. The essential oils themselves are volatile odoriferous compounds and also serve to dissolve the other components of the perfume.

The nonionic surfactant which is used in the color/perfume concentrates can also be optionally contained in the cleaning composition.

The water soluble nonionic surfactants utilized in the color/perfume concentrates are commercially well known and include the primary aliphatic alcohol ethoxylates and secondary aliphatic alcohol ethoxylates. The nonionic synthetic organic surfactants generally are the condensation products of an organic aliphatic hydrophobic compound and hydrophilic ethylene oxide groups. Any hydrophobic compound having a hydroxy group can be condensed with ethylene oxide or with the polyhydration product thereof, polyethylene glycol, to form a water soluble nonionic surfactant.

The nonionic surfactant class includes the condensation products of a higher alcohol (e.g., an alkanol containing about 8 to about 18, more preferably about 8 to about 12, carbon atoms in a straight or branched chain configuration) condensed with about 10 to 20 moles of ethylene oxide, for example, decyl, lauryl or myristyl alcohol condensed with about 12 moles of ethylene oxide (EO), myristyl alcohol condensed with about 10 moles of EO per mole of myristyl alcohol, the condensation product of EO with a cut of coconut fatty alcohol containing a mixture of fatty alcohols with alkyl chains varying from 10 to about 14 carbon atoms in length and wherein the condensate contains either about 10 moles of EO per mole of total alcohol or about 10 moles of EO per mole of alcohol.

A preferred group of the foregoing nonionic surfactants are the Neodol ethoxylates (Shell Co.), which are higher aliphatic, primary alcohol containing about 8 to 15 carbon atoms, such as C_9-C_{11} alkanol condensed with 8 moles of ethylene oxide (Neodol 91-8), C_{9-11} alkanol condensed with 12 moles ethylene oxide (Neodol 91-12).

Most preferred nonionic surfactants present will be condensation products of a fatty alcohol of 8 to 20 carbon atoms with from 3 to 20 moles of ethylene oxide, preferably of a linear alcohol of 9 to 15 carbon atoms, such as 9-11 or 11-13 carbon atoms, or averaging about 10 or 12 carbon atoms, with 3 to 15 moles of ethylene oxide, such as 3-7 or 5-9 moles of ethylene oxide, e.g., about 5 or 7 moles thereof. In place of the higher fatty alcohol one may use an alkylphenol, such as one of 8 to 10 carbon atoms in a linear alkyl, e.g., nonylphenol, and the phenol may be condensed with from 3 to 20 ethylene oxide groups, preferably 8 to 15. Similarly functioning nonionic surfactants that are polymers of mixed ethylene oxide and propylene oxide may be substituted, at least in part, for the other nonionics. Among such are those sold under the trademarks Synperonic and Plurafac, such as Synperonic RA-30 and Plurafac LF-400, which are available from ICI and BASF, respectively. Preferred such nonionics contain 3 to 12 ethoxides, more preferably about 7, and 2 to 7 propoxy groups, more preferably about 4, and such are condensed with a higher fatty alcohol of 12-16, more preferably 13-15 carbon atoms, to make a mole of nonionic surfactant.

The light duty liquid compositions to which the color/perfume concentrate can be added comprise approximately by weight:

- (a) 5% to 45% of at least one surfactant selected from the group consisting of sulfate anionic surfactant, sulfonate anionic surfactant, mixtures of esterified, partially esterified and nonesterified polyhydric alcohols, car-

boxylate anionic surfactant, nonionic surfactants and zwitterionic surfactants and mixtures thereof;

(b) 0-20% of a solubilizer; and

(c) the balance being water.

An all purpose cleaning composition to which the color/perfume concentrate can be added comprises approximately by weight:

(a) 5% to 45% of at least one surfactant selected from the group consisting of sulfate anionic surfactant, sulfonate anionic surfactant, mixtures of esterified, partially esterified and nonesterified polyhydric alcohols, carboxylate anionic surfactant, nonionic surfactants and zwitterionic surfactants and mixtures thereof;

(b) 0 to 15% of a cosurfactant; and

(c) the balance being water.

The microemulsion composition to which the color/perfume concentrate can be added comprises approximately by weight:

(a) 5% to 45% of at least one surfactant selected from the group consisting of sulfate anionic surfactant, sulfonate anionic surfactant, mixtures of esterified, partially esterified and nonesterified polyhydric alcohols, carboxylate anionic surfactant, nonionic surfactants and zwitterionic surfactants and mixtures thereof;

(b) 1% to 15% of a cosurfactant; and

(c) the balance being water.

The shampoo composition to which the color/perfume concentrate can be added comprises approximately by weight:

(a) 10% to 30% of an ammonium or alkali metal salt of an ethoxylated C_8-C_{16} alkyl ether sulfate, a C_8-C_{16} alkyl benzene sulfonate or a C_8-C_{16} alkyl sulfate;

(b) 0.1% to 4% of a alkyl polysiloxane;

(c) 0 to 3% of a C_{12-16} alkyl alkanol amide;

(d) 0.1% to 3% of a $C_{20}-C_{40}$ alcohol;

(e) 0 to 1.5% of a distearyldimonium chloride;

(f) 0 to 4% of a zwitterionic sulfonate; and

(g) the balance being water.

The body cleaning composition to which the color/perfume concentrate can be added comprises approximately by weight:

(a) 6% to 30% of an ethoxylated C_8-C_{16} alkyl ether sulfate;

(b) 2% to 16% of a C_8-C_{16} alkyl sulfate or a C_8-C_{16} alkyl benzene sulfonate;

(c) 1% to 8% of a zwitterionic surfactant;

(d) 1% to 8% of a C_{12-16} alkyl alkanol amide; and

(e) the balance being water.

The fabric care cleaning composition to which the color/perfume concentrate can be added comprises approximately by weight:

(a) 5% to 40% of a sulfate or sulfonate surfactant;

(b) 0.05% to 5% of at least one enzyme; and

(c) the balance being water.

Suitable water-soluble non-soap, anionic surfactants used in the instant cleaning compositions include those surface-active or detergent compounds which contain an organic hydrophobic group containing generally 8 to 26 carbon atoms and preferably 10 to 18 carbon atoms in their molecular structure and at least one water-solubilizing group selected from the group of sulfonate, sulfate and carboxylate so as to form a water-soluble detergent. Usually, the hydrophobic group will include or comprise a C_8-C_{22} alkyl, alkyl

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or acyl group. Such surfactants are employed in the form of water-soluble salts and the salt-forming cation usually is selected from the group consisting of sodium, potassium, or magnesium, with the sodium and magnesium cations again being preferred.

Examples of suitable sulfonated anionic surfactants are the well known higher alkyl mononuclear aromatic sulfonates such as the higher alkyl benzene sulfonates containing from 10 to 16 carbon atoms in the higher alkyl group in a straight or branched chain, C_8 - C_{15} alkyl toluene sulfonates and C_8 - C_{15} alkyl phenol sulfonates.

A preferred sulfonate is linear alkyl benzene sulfonate having a high content of 3- (or higher) phenyl isomers and a correspondingly low content (well below 50%) of 2- (or lower) phenyl isomers, that is, wherein the benzene ring is preferably attached in large part at the 3 or higher (for example, 4, 5, 6 or 7) position of the alkyl group and the content of the isomers in which the benzene ring is attached in the 2 or 1 position is correspondingly low. Particularly preferred materials are set forth in U.S. Pat. No. 3,320,174.

Other suitable anionic surfactants are the olefin sulfonates, including long-chain alkene sulfonates, long-chain hydroxyalkane sulfonates or mixtures of alkene sulfonates and hydroxyalkane sulfonates. These olefin sulfonate detergents may be prepared in a known manner by the reaction of sulfur trioxide (SO_3) with long-chain olefins containing 8 to 25, preferably 12 to 21 carbon atoms and having the formula $RCH=CHR_1$, where R is a higher alkyl group of 6 to 23 carbons and R_1 is an alkyl group of 1 to 17 carbons or hydrogen to form a mixture of sultones and alkene sulfonic acids which is then treated to convert the sultones to sulfonates. Preferred olefin sulfonates contain from 14 to 16 carbon atoms in the R alkyl group and are obtained by sulfonating an α -olefin.

Other examples of suitable anionic sulfonate surfactants are the paraffin sulfonates containing 10 to 20, preferably 13 to 17, carbon atoms. Primary paraffin sulfonates are made by reacting long-chain α olefins and bisulfites and paraffin sulfonates having the sulfonate group distributed along the paraffin chain are shown in U.S. Pat. Nos. 2,503,280; 2,507,088; 3,260,744; 3,372,188; and German Patent 735, 40 096.

Examples of satisfactory anionic sulfate surfactants are the C_8 - C_{18} alkyl sulfate salts and the C_8 - C_{18} alkyl sulfate salts and the C_8 - C_{18} alkyl ether polyethenoxy sulfate salts having the formula $R(OC_2H_4)_nOSO_3M$ wherein n is 1 to 12, preferably 1 to 5, and M is a metal cation selected from the group consisting of sodium, potassium, ammonium, magnesium and mono-, di- and triethanol ammonium ions. The alkyl sulfates may be obtained by sulfating the alcohols obtained by reducing glycerides of coconut oil or tallow or mixtures thereof and neutralizing the resultant product.

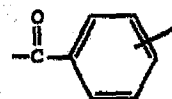
On the other hand, the alkyl ether polyethenoxy sulfates are obtained by sulfating the condensation product of ethylene oxide with a C_8 - C_{18} alkanol and neutralizing the resultant product. The alkyl sulfates may be obtained by sulfating the alcohols obtained by reducing glycerides of coconut oil or tallow or mixtures thereof and neutralizing the resultant product. On the other hand, the alkyl ether polyethenoxy sulfates are obtained by sulfating the condensation product of ethylene oxide with a C_8 - C_{18} alkanol and neutralizing the resultant product. The alkyl ether polyethenoxy sulfates differ from one another in the number of moles of ethylene oxide reacted with one mole of alkanol. Preferred alkyl sulfates and preferred alkyl ether polyethenoxy sulfates contain 10 to 16 carbon atoms in the alkyl group.

The C_8 - C_{12} alkylphenyl ether polyethenoxy sulfates containing from 2 to 6 moles of ethylene oxide in the molecule

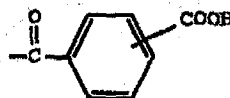
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also are suitable for use in the inventive compositions. These surfactants can be prepared by reacting an alkyl phenol with 2 to 6 moles of ethylene oxide and sulfating and neutralizing the resultant ethoxylated alkylphenol.

Other suitable anionic surfactants are the C_8 - C_{15} alkyl ether polyethenoxy carboxylates having the structural formula $R(OC_2H_4)_nOXCOOH$ wherein n is a number from 4 to 12, preferably 5 to 10 and X is selected from the group consisting of CH_2 , $C(O)R_1$ and

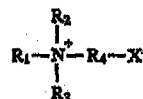


wherein R_1 is a C_1 - C_3 alkylene group. Preferred compounds include C_8 - C_{11} alkyl ether polyethenoxy (7-9) $C(O)CH_2CH_2COOH$, C_{13} - C_{15} alkyl ether polyethenoxy (7-9)

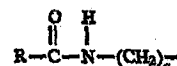


and C_{10} - C_{12} alkyl ether polyethenoxy (5-7) CH_2COOH . These compounds may be prepared by considering ethylene oxide with appropriate alkanol and reacting this reaction product with chloroacetic acid to make the ether carboxylic acids as shown in U.S. Pat. No. 3,741,911 or with succinic anhydride or phthalic anhydride. Obviously, these anionic surfactants will be present either in acid form or salt form depending upon the pH of the final composition, with salt forming cation being the same as for the other anionic surfactants.

The zwitterionic surfactant used in forming the cleaning composition is a water soluble betaine having the general formula:

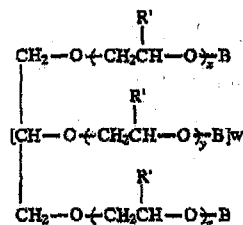


wherein X^- is selected from the group consisting of COO^- and SO_3^- and R_1 is an alkyl group having 10 to about 20 carbon atoms, preferably 12 to 16 carbon atoms, or the amido radical:

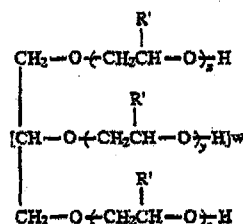


wherein R is an alkyl group having about 9 to 19 carbon atoms and a is the integer 1 to 4; R_2 and R_3 are each alkyl groups having 1 to 3 carbons and preferably 1 carbon; R_4 is an alkylene or hydroxyalkylene group having from 1 to 4 carbon atoms and, optionally, one hydroxyl group. Typical alkyldimethyl betaines include decyl dimethyl betaine or 2-(N-decyl-N,N-dimethyl-ammonia) acetate, coco dimethyl betaine or 2-(N-coco N,N-dimethylammonia) acetate, myristyl dimethyl betaine, palmityl dimethyl betaine, lauryl dimethyl betaine, cetyl dimethyl betaine, stearyl dimethyl betaine, etc. The amidobetaines similarly include cocoamidethylbetaine, cocoamidopropyl betaine and the like. A preferred betaine is coco (C_8 - C_{18}) amidopropyl dimethyl betaine. Three preferred betaine surfactants are Genagen CAB and Rewoteric AMB 13 and Golmschmidt Betaine L7.

The instant cleaning composition can contain a composition (herein after referred to as ethoxylated glycerol type compound) which is a mixture of a fully esterified ethoxylated polyhydric alcohol, a partially esterified ethoxylated polyhydric alcohol and a nonesterified ethoxylated polyhydric alcohol, wherein the preferred polyhydric alcohol is glycerol, and the compound is a mixture of



and



wherein w equals one to four, most preferably one. B is selected from the group consisting of hydrogen or a group represented by:



wherein R is selected from the group consisting of alkyl group having about 6 to 22 carbon atoms, more preferably about 11 to about 15 carbon atoms and alkenyl groups having about 6 to 22 carbon atoms, more preferably about 11 to 15 carbon atoms, wherein a hydrogenated tallow alkyl chain or a coco alkyl chain is most preferred, wherein at least one of the B groups is represented by said



and R' is selected from the group consisting of hydrogen and methyl groups; x, y and z have a value between 0 and 60, more preferably 0 to 40, provided that (x+y+z) equals about 2 to about 100, preferably 4 to about 24 and most preferably about 4 to 19, wherein in Formula (I) the ratio of monoester/diester/triester is 45 to 90/5 to 40/1 to 20, more preferably 50 to 90/9 to 32/1 to 12, wherein the ratio of Formula (I) to Formula (II) is a value between about 3 to about 0.02, preferably 3 to about 0.1, most preferably about 1.5 to about 0.2, wherein it is most preferred that there is more of Formula (II) than Formula (I) in the mixture that forms the compound.

The ethoxylated glycerol type compound used in the cleaning composition is manufactured by the KAO Corporation and sold under the trade name Levenol such as Levenol F-200 which has an average EO of 6 and a molar ratio of coco fatty acid to glycerol of 0.55 or Levenol V501/2 which has an average EO of 17 and a molar ratio of tallow fatty acid to glycerol of 1.0. It is preferred that the molar

ratio of the fatty acid to glycerol is less than about 1.7, more preferably less than about 1.5 and most preferably less than about 1.0. The ethoxylated glycerol type compound has a molecular weight of about 400 to about 1600, and a pH (50 grams/liter of water) of about 5-7. The Levenol compounds are substantially non irritant to human skin and have a primary biodegradability higher than 90% as measured by the Wickbold method Bias-7d.

Two examples of the Levenol compounds are Levenol V-501/2 which has 17 ethoxylated groups and is derived from tallow fatty acid with a fatty acid to glycerol ratio of 1.0 and a molecular weight of about 1465 and Levenol F-200 has 6 ethoxylated groups and is derived from coco fatty acid with a fatty acid to glycerol ratio of 0.55. Both Levenol F-200 and Levenol V-501/2 are composed of a mixture of Formula (I) and Formula (II). The Levenol compounds has ecotoxicity values of algae growth inhibition >100 mg/liter; acute toxicity for Daphniae >100 mg/liter and acute fish toxicity >100 mg/liter. The Levenol compounds have a ready biodegradability higher than 60% which is the minimum required value according to OECD 301B measurement to be acceptably biodegradable.

Polyesterified nonionic compounds also useful in the cleaning compositions are Crovol PK-40 and Crovol PK-70 manufactured by Croda GMBH of the Netherlands. Crovol PK-40 is a polyoxyethylene (12) Palm Kernel Glycide which has 12 EO groups. Crovol PK-70 which is preferred is a polyoxyethylene (45) Palm Kernel Glycide have 45 EO groups.

The surfactants in the light duty liquid, shampoo or body cleaning composition can be solubilized in one preferred embodiment of the invention in an aqueous medium comprising water and a mixture of an alkyl monoalkanol amides such as C₁₂-C₁₄ alkyl monoethanol amide (LMMEA) at a concentration of 1 to 4 wt. %, and an alkyl diethanol amides such as coco diethanol amide (CDEA) or lauryl diethanol amide (LDEA) at a concentration of 1 to 4 wt. % wherein the ratio of monoethanol amide to diethanol amide is about 3:1 to about 1:3. The instant formulas may contain both alkyl monoethanol amide and alkyl diethanol amide.

Other solubilizing agents are C₂-C₃ mono and di-hydroxy alkanols, e.g., ethanol, isopropanol and propylene glycol. Suitable water soluble hydrotropic salts include sodium, potassium, ammonium and mono-, di- and triethanolammonium salts. While the aqueous medium is primarily water, preferably said solubilizing agents are included in order to control the viscosity of the liquid composition and to control low temperature cloud clear properties. Usually, it is desirable to maintain clarity to a temperature in the range of 5° C. to 10° C. Therefore, the proportion of solubilizer generally will be from about 1% to 15%, preferably 2% to 12%, most preferably 3%-8%, by weight of the detergent composition with the proportion of ethanol, when present, being 5% of weight or less in order to provide a composition having a flash point above about 46° C. Preferably the solubilizing ingredient will be a mixture of ethanol and a water soluble salt of a C₁-C₃ substituted benzene sulfonate hydrotrope such as sodium xylene sulfonate or sodium cumene sulfonate or a mixture of said sulfonates or ethanol and urea. Inorganic alkali metal or alkaline earth metal salts such as sodium sulfate, magnesium sulfate, sodium chloride and sodium citrate can be added at concentrations of 0.5 to 4.0 wt. % to modify the cloud point of the nonionic surfactant and thereby control the haze of the resultant solution.

A cosurfactant can be used in forming the all purpose hard surface or microemulsion cleaning compositions of the instant invention. Suitable cosurfactants over temperature

amounts up to 2% by weight; and pH adjusting agents, such as sulfuric acid or sodium hydroxide, as needed. Furthermore, if opaque compositions are desired, up to 4% by weight of an opacifier may be added.

In final form, the cleaning compositions exhibit stability at reduced and increased temperatures. More specifically, such compositions remain clear and stable in the range of 4° C. to 50° C., especially 10° C. to 43° C. Such compositions exhibit a pH in the acid or neutral range depending on intended end use. The liquids are readily pourable and exhibit a viscosity in the range of 6 to 60 millipascal Second (mPas.) as measured at 25° C. with a Brookfield RVT Viscometer using a #1 spindle rotating at 20 RPM.

EXAMPLE I

A liquid composition was made by simple mixing at 25C to which color/perfume concentrates A-D were added to form microemulsion compositions E-F. The liquid composition was: sodium paraffin sulfonate surfactant, Levenol F-200, Diethylene glycol monobutyl ether, Water

	A	B	C	D
Floral perfume	99.75			
Lemon perfume		98.75		
Exotic perfume			98.625	
Lavanda perfume				99.75
Liquitint patent blue 710230	0.25			
Liquitint yellow EC710406		1.25	1.25	
Liquitint blue 710407			0.125	
Liquitint violet PG710233				0.125
Liquitint red RL710208				0.125

The letdown ratio of:

Liquid composition to color perfume concentrate to obtain 0.8 wt. % of the perfumes in the final composition was

	A	B	C	D
Liquid composition	125:1	123:1	123:1	125:1

What is claimed is:

1. A liquid color/perfume concentrate comprising approximately by weight;

(a) 0.01% to 50% of a polymer bound water soluble nonionic azo dye; and

(b) 50% to 99.99% of a non-water soluble perfume.

2. A liquid/perfume concentrate further including a non-ionic surfactant or ethoxylated glycerol type compound.

3. A process for adding fragrance and color to a liquid composition which comprises the step of adding a liquid color/perfume concentrate comprising approximately by weight 50% to 99.99% of a perfume and 0.01% to 50% of a polymer bound water soluble nonionic azo dye to a liquid composition.

4. A process according to claim 3, wherein said liquid composition is selected from the group consisting of light duty liquid compositions, an all purpose cleaning composition, a microemulsion composition, a shampoo composition, a body cleaning composition and a fabric care cleaning composition.

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