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SUPERINTENDENCIA Y COMERCIO
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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO.

DOCTOR:

GIANCARLO MARCENARO JIMÉNEZ.

Superintendente Delegado Para la Propiedad Industrial

EXPEDIENTE: 02-071.964

**ASUNTO: Solicitud de patente a nombre de
Johnson & Johnson Consumer Companies Inc**

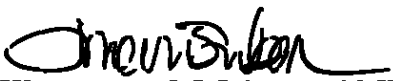
Estimado Doctor:

En mi calidad de apoderada de la sociedad solicitante de la patente de la referencia manifiesto a usted lo siguiente:

1-Mediante memorial presentado ante ese despacho el **5 de agosto de 2004**, se solicitó a la división de nuevas creaciones examinar la patente de la referencia, asunto que no ha sido atendido aún por parte de esa Superintendencia.

2-En vista de que ha transcurrido **1 AÑO**, desde que se solicitó dicho examen de patentabilidad, sin que hasta la fecha se haya resuelto dicha petición, ruego a usted se sirva dar las instrucciones del caso para que se proceda de inmediato a tramitar tal solicitud y se otorgue la patente de la referencia lo mas pronto posible

Cordialmente,


JIMENA ESCOBAR URIBE
CC 39.779.452 de Usaquén.
T.P. 68228

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

(10) **Patent No.:** **US 6,224,886 B1**
(45) **Date of Patent:** **May 1, 2001**

(54) **SKIN WASH COMPOSITIONS COMPRISING TRICLOCARBAN AND SURFACTANTS**

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patent is extended or adjusted under 35
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A61K 31/74; A01N 25/34

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(58) **Field of Search** 252/106, 117,
252/132; 424/78.03, 401, 404

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(57) **ABSTRACT**

The compositions of the present invention are useful for the topical delivery of a wide variety of active ingredients. These compositions are particularly useful for treating conditions such as acne and its attendant skin lesions, blemishes, and other imperfections. These compositions are nonirritating to the skin and also provide skin feel benefits. These compositions can be in the form of leave-on products and products that are rinsed or wiped from the skin after use.

16 Claims, 1 Drawing Sheet

SKIN WASH COMPOSITIONS COMPRISING TRICLOCARBAN AND SURFACTANTS

The present invention relates to compositions for topical application to the skin surface including the scalp, in particular to antibacterial skin wash compositions which are applied to water-wetted skin, and subsequently rinsed off with water. Specifically, the present invention relates to skin wash compositions comprising triclocarban as the active antibacterial ingredient formulated in a mild and non-irritant detergent base.

Antibacterial cleansing compositions are widely used in the health care industry, for example in hospitals, in the form of scrubs and washes. Skin cleansing compositions comprising an antibacterial agent also have utility in the domestic environment both as general cleansers and in particular for the treatment and prevention of acne, a pilosebaceous disease characterised by comedones containing sebum, protein debris and anaerobic microorganisms including *Propionibacterium acnes* (*P. acnes*). The active ingredient of products which are currently available on general sale as skin cleansers, including cleansers targeted for the treatment and prevention of acne, include for example salicylic acid, benzoyl peroxide and triclosan. Such compounds whilst conferring a beneficial effect on the skin may cause local irritation when applied to sensitive areas, in particular the face. Moreover, local irritation may be exacerbated by the carrier system in which the active ingredient is formulated. For example, skin wash compositions and in particular face wash compositions which generally include a soap-free detergent base selected for effective cleansing and foaming, may confer an irritant effect due to the use of surfactants commonly employed in such detergent systems.

European Patent Publication 0 670 158 A2 discloses an aqueous liquid composition comprising about 4 to 10 wt % of anionic surfactant about 1.5 to 5 wt % of betaine about 1.5 to 8 wt % of an alkyl polyglycoside wherein the average degree of polymerisation is from about 1.1 to 6 and the average alkyl length is from about 8 to 16 carbon atoms inclusive, and an antibacterial effective amount of an antibacterial agent or mixture of antibacterial agents, which compositions are described as being at least as mild if not actually milder than various commercial antibacterial liquid cleansing compositions on the market place. The preferred antibacterial agent is a member of the family of halogenated phenoxy diphenyl ethers, most preferably the compound 2,4,4'-trichloro-2'-hydroxyphenylether which has the generic name triclosan.

Triclocarban (3,4,4'-trichlorocarbanilide-N-(4-chlorophenyl-N-3,4-dichlorophenyl)urea) is an antibacterial agent with broad spectrum activity. It is effective against bacteria commonly found on the skin, including pathogenic *Staphylococcus* species which are resistant to many bacteriostats. It has been shown to reduce body odour by preventing growth of the causative organisms. It is non-irritant and has a high affinity for the skin which means that the bacteriostatic effect persists after application. The low mammalian toxicity of triclocarban together with its antibacterial activity have given rise to its usage as a bacteriostatic agent in bar soaps for over 35 years and more recently in liquid soap products. Triclocarban is described in the promotional materials of its commercial suppliers as having activity at low concentrations in finished products, typically in the range 0.5 to 1.5% w/w.

Triclocarban has a very low water solubility (<0.1%). This confirms the advantage that once applied to the skin, it is not readily removed by rinsing. However, a problem

arising from its low water solubility is that it requires addition of substantial quantities of organic solvents if a clear liquid product is to be obtained. Alternatively, it can be formulated as a suspension, the stability of which can be controlled by emulsification.

Experiments have now shown that triclocarban is highly effective against *Propionibacterium acnes* at low concentrations. The NIC value against *P. acnes* has been measured at 1.49 compared to a value of greater than 12.79 for triclosan.

It is an object of the present invention to provide a skin wash composition, preferably as a clear liquid product, containing an antibacterial agent which is effective against *P. acnes* in a detergent base which has good cleansing and foaming characteristics, which composition is mild and non-irritant to the skin. This object is achieved according to the present invention which is based on the unexpected finding that the antimicrobial agent triclocarban is effective against *P. acnes* at unusually low concentrations and can be incorporated in a mild detergent base comprising a mixture of a non-ionic alkylpolyglycoside surfactant and an amphoteric surfactant which has the desired cleansing and foaming characteristics in the absence of an anionic surfactant.

According to the present invention there is provided a skin wash composition comprising from 0.05 to 0.25% w/w of triclocarban and a detergent base consisting of a mixture of a non-ionic alkylpolyglycoside surfactant and an amphoteric surfactant in the absence of an anionic surfactant. Preferably the concentration of triclocarban in the composition will be in the range 0.075 to 0.15% w/w and more preferably 0.10% w/w. Surprisingly, it has also been found that triclocarban is more effective against *P. acnes* when the detergent base content of the composition is reduced.

As used herein, the term alkylpolyglycoside surfactant means a non-ionic surfactant derived from common natural organic monomer units as found in starch, fats and sugars, and most suitably derived from D-glucose monomer units. Alkylpolyglycosides derived from D-glucose are acetal compounds in which the alkyl residue has a carbon chain length of from 8 to 16 carbon atoms and the degree of glucosidation (or polymerisation), i.e. the average number of glucose units per alkyl radical, is between 1.1 and 6. A range of suitable alkylpolyglycosides are commercially available either individually or as mixtures or blends. Compositions according to this invention will generally contain mixtures or blends of different alkylpolyglycosides. Preferred alkylpolyglycosides for use in the present invention include decyl glucoside and lauryl glucoside and mixtures thereof. Alkylpolyglycoside surfactants generally comprise up to 15% w/w of the skin wash composition, suitably from 2.0 to 10.0% w/w and preferably from 4.0 to 6.0% w/w of the composition. It will be appreciated that the amount of alkylpolyglycoside will be determined to some extent by the nature and amount of amphoteric surfactant present in the composition.

In principle, any amphoteric surfactant which is acceptable for topical application to the skin may contribute, with the alkylpolyglycoside surfactant, to the detergent base but, in view of their inherent mildness and good foaming performance, the preferred amphoteric surfactant will belong to the class of compounds known as betaines. Structurally, betaine compounds contain a carboxylate functional group and a quaternary nitrogen function separated by a methylene moiety. They include n-alkyl betaines such as cetyl betaine and behenyl betaine, and n-alkylamido betaines such as cocomidopropyl betaines. The amphoteric surfactant component of the detergent base for compositions

of the present invention may be a single compound or a mixture or blend of two or more different substances. A preferred amphoteric surfactant is cocamidopropyl betaine. Amphoteric surfactants will generally comprise up to 10% w/w of the skin wash composition, suitably from 2.0 to 8.0% w/w and preferably from 2.5 to 5.0% w/w of the skin wash composition. The amount of amphoteric surfactant will to some extent be determined by the alkylpolyglucoside surfactant component of the detergent base.

Typically, the detergent base consisting of the mixture of non-ionic alkylpolyglucoside surfactant and amphoteric surfactant will constitute no more than 20% w/w of the skin wash composition. Suitably the detergent base will constitute from 5.0 to 15.0% w/w and more suitably from 6.0 to 13.0% w/w of the skin wash composition.

The skin wash compositions of the invention may also contain additional topically acceptable skin conditioning and soothing agents for example in the form of anti-inflammatory agents and vitamins or vitamin derivatives, typically at low concentrations, for example in the range 0.01 to 2.0% w/w of the total composition. Examples of topically acceptable anti-inflammatory agents include allantoin and bisabolol. A preferred vitamin derivative is vitamin E acetate which has anti-inflammatory properties.

Additionally, compositions of the present invention will suitably contain pharmaceutically and cosmetically acceptable additives or excipients conventional in the field of topical medicines and cosmetics, including for example thickeners, moisturisers, re-fattening agents, preservatives, conditioners, chelating agents, buffering agents, colouring agents, fragrances, UV filters and/or emulsifiers. The additives or excipients used in any given composition will be compatible both with each other and with the essential ingredients of the composition such that there is no interaction which would impair the performance of the active ingredients. All additives or excipients must of course be non-toxic and of sufficient purity to render them suitable for human use.

Suitable thickeners include polymeric high molecular weight, non-ionic surfactants consisting of a long chain (C_{12} to C_{18}) polyethylene glycol fatty acid or fatty acid residue. Examples include PEG 200 hydrogenated glyceryl palmitate, PEG 55 propylene glycol oleate, PEG 150 distearate and PEG 200 glyceryl tallowate. Suitable low molecular weight thickeners include cocamide DEA, laureth-3 and glyceryl monolaurate. A thickener comprising a polyurethane resin, propylene glycol and water sold under the trade name Acrysol 44 also performs well in detergent based skin wash compositions. A thickener will suitably comprise up to 10.0% w/w of the composition, more suitably from 2.0 to 5.0% w/w. Preferred moisturisers include glycerin, propylene glycol, sorbitol and polyethylene glycol. A moisturiser may comprise up to 15% w/w of the composition, more generally from 2.0 to 6.0% w/w of the composition. Suitable re-fattening agents generally comprising 0.5 to 5.0% w/w of the composition, preferably 0.75 to 2.0% w/w include polyethylene glycol 7 and glyceryl cocoate. Suitable preservatives generally comprising 0.01 to 1.00% w/w of the composition and suitably 0.10 to 0.30% w/w, include phenoxethanol and methyl dibromo glutaronitrile and mixtures thereof. Suitable conditioners, generally comprising 0.1 to 5.0% w/w of the composition and suitably 1.0 to 3.5% w/w include hydroxycetyl hydroxyethyl dimonium chloride and polyquaternium 39. Suitable chelating agents, generally comprising up to 1.0% w/w of the composition and suitably 0.1 to 0.3% w/w include ethylene diamine tetra-acetic acid (EDTA), hydroethylene diamine triacetic

acid (HEEDTA), diethylene triamine penta-acetic acid (DPTA) and cyclohexane diamine tetra-acetic acid (CTDA).

The balance of the composition is typically water plus non-alcohol solvent so as to make up 100% w/w of the composition. In a preferred formulation, water will generally constitute more than 50% w/w of the skin wash composition. Other suitable non-alcohol solvents which may be included to aid formation of a clear solution include glycols such as propylene glycol and polyethylene glycols such as PEG 400 and PEG 40 hydrogenated castor oil/trideceth 9.

The skin wash compositions of the invention may be prepared by methods well known in the art and readily available to the skilled formulator. Generally the triclocarban is dissolved in non-aqueous solvent, the resulting premix is added to aqueous detergent base together with any additives and the viscosity of the composition is set to the desired level by addition of thickening agent. The present invention extends to a process for preparing a skin wash composition as hereinbefore defined comprising the admixture of a solution of triclocarban in non-aqueous solvent with the detergent base in an aqueous solvent system.

The present invention additionally encompasses the use of a skin wash composition as hereinbefore defined for the manufacture of a medicament for the treatment and/or prophylaxis of acne. The use of compositions of the present invention as hereinbefore defined as a cosmetic treatment for improving the appearance and condition of human skin also forms part of the invention.

The following examples further describe and demonstrate compositions falling within the scope of the invention. For the avoidance of doubt, the examples are provided solely for the purpose of illustration and are not limiting with respect to the scope of the invention.

EXAMPLE 1

Skin Wash Composition Containing 0.10% w/w Triclocarban

A composition comprising the following ingredients was prepared by forming a solution of triclocarban in the non-aqueous solvents, adding the solution to the detergent base and water, which clear solution was then thickened.

Ingredient		% w/w
antibacterial agent	triclocarban	0.10
	deacyl glucoside	3.50
detergent base	lauryl glucoside	3.60
	cocamidopropyl betaine	5.00
thickener	PEG 120 methyl glucoside dialents	4.50
pH adjuster	citric acid monohydrate	0.15
solvent	propylene glycol	5.00
	PEG 400	2.50
	PEG 40 hydrogenated castor oil & trideceth 9	0.20
de-ionised water		to 100%

EXAMPLE 2

Skin Wash Composition Containing 0.10% w/w Triclocarban

The composition of Example 1 was prepared with reduced concentrations of the surfactants making up the detergent base as shown below.

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detergent base	lauryl glucoside	2.40
	decyl glucoside	2.00
	cocamidopropyl betaine	2.80

EXAMPLE 3

Skin Wash Composition Containing 0.15% w/w Triclocarban

The composition of Example 1 was prepared using 0.15% w/w triclocarban.

EXAMPLE 4

Skin Wash Composition Containing 0.10% w/w Triclocarban

The composition of Example 2 containing the additional excipients indicated below was prepared. The resulting product was a clear liquid:

conditioner	hydroxyethyl hydroxyethyl dimonium chloride
chelating agent	EDTA
preservative	phenoxyethanol
	ethyl dibromo glutaronitrile
anti-inflammatory agent	allantoin
	vitamin E acetate
UV filter	benzophenone

EXAMPLE 5

Skin Wash Composition Containing 0.15% w/w Triclocarban

The composition of Example 4 was prepared using 0.15% w/w triclocarban.

EXAMPLE 6

Kill Times of Triclocarban Skin Washes Against *P. Acnes* (Strain NCTC 737)

Results are shown in the following table in colony forming units per ml (CFU/ml) remaining after the time point stated and are represented graphically in the appended drawing.

Example No.	1 min	5 min	10 min	30 min
1	6.35×10^4	1.46×10^4	3.45×10^3	4.0×10^2
2	9.25×10^4	1.90×10^4	8.75×10^3	6.50×10^2
3	5.20×10^4	1.21×10^4	3.55×10^3	1.50×10^2
4	5.10×10^5	1.29×10^4	5.05×10^3	10^2
5	1.15×10^5	1.53×10^4	1.26×10^4	4.5×10^2

Prior Art (D1-D3) to be Acknowledged in the Description

European Patent Application 422 508 discloses detergent compositions comprising 0.1 to 95% by weight of a saccharide nonionic surfactant and 0.01 to 5% by weight of an antibacterial agent. The detergents are disclosed for use in anti-dandruff and body shampoos.

JP-A-2 152 920 discloses compositions for sterilizing and cleansing skin for use by women during menstruation. The compositions contain 20-70 wt. % synthetic oil and or mineral oil. 1-25 wt. % nonionic surfactant, 0-2 wt. % amphoteric surfactant 0.001-1 wt. % sterilization agent and purified water.

WO 92/18100 discloses liquid cleansing compositions, said to have improved mildness and degerming characteristics. The compositions comprise 0.5-5.75 weight percent of a mild ethoxylated surfactant; 1-40 weight percent of a cosurfactant selected from the group consisting of non-ethoxylated anionic, nonionic, zwitterionic and amphoteric surfactants and mixtures thereof; 0.01-4 weight percent of antibacterial agent; 0.05-5 weight percent of water-soluble cationic polymer and 35-97 weight percent water.

What is claimed is:
1. A skin wash composition comprising from 0.5 to 0.025% w/w of triclocarban and a detergent base consisting of a mixture of a non-ionic alkylpolyglucoside surfactant and an amphoteric surfactant in the absence of an anionic surfactant.

2. A skin wash composition according to claim 1 wherein triclocarban is present at a concentration in the range 0.075 to 0.15% w/w.

3. A skin wash composition according to claim 1 wherein the alkylpolyglucoside surfactant is decyl glucoside, lauryl glucoside or mixtures thereof.

4. A skin wash composition according to claim 1 wherein the alkylpolyglucoside surfactant comprises up to 15% w/w of the composition.

5. A skin wash composition according to claim 4 wherein the alkylpolyglucoside surfactant comprises from 2.0 to 10.0% w/w of the composition.

6. A skin wash composition according to claim 1 wherein the amphoteric surfactant comprises at least one betaine.

7. A skin wash composition according to claim 6 wherein the betaine is cocamidopropyl betaine.

8. A skin wash composition according to claim 1 wherein the amphoteric surfactant comprises up to 10% w/w of the composition.

9. A skin wash composition according to claim 8 wherein the amphoteric surfactant comprises from 2.0 to 8.0% w/w of the composition.

10. A skin wash composition according to claim 1 wherein the detergent base comprises up to 20% w/w of the composition.

11. A skin wash composition according to claim 10 wherein the detergent base comprises from 5.0 to 15.0% w/w of the composition.

12. A skin wash composition according to claim 1 comprising a solvent which is a mixture of water and a non-aqueous solvent.

13. A skin wash composition according to claim 12 wherein the non-aqueous solvent comprises a glycol solvent.

14. A method for the preparation of a composition as defined in claim 12 which method comprises admixture of a solution of triclocarban in non-aqueous solvent with the detergent base in an aqueous solvent system.

15. A method of treatment and/or prophylaxis of acne in a patient which comprises the administration of an anti-acne effective amount of a composition as defined in claim 1 to a patient.

16. A method for improving the appearance and condition of human skin comprising administering an effective amount of a composition defined in claim 1.

* * * * *

No ionic gl
Amphoteric
(Betaine)
No²(-).



D2

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶: C11D 1/825, 1/94, 1/835, A61K 7/30	A1	(11) International Publication Number: WO 99/19438 (43) International Publication Date: 22 April 1999 (22.04.99)
(21) International Application Number: PCT/US98/21788 (22) International Filing Date: 15 October 1998 (15.10.98) (30) Priority Data: 08/943,675 15 October 1997 (15.10.97) US (63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US 08/943,675 (CIP) Filed on 15 October 1997 (15.10.97) (71) Applicant (for all designated States except US): STEPAN COMPANY [US/US]; 22 West Frontage Road, Northfield, IL 60093 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): KNOX, Steven, J. [US/US]; Apartment #502, 555 West Arlington Place, Chicago, IL 60614 (US). MALIK, Amhad [US/US]; 3172 Riviera Way, San Ramon, CA 94583 (US). (74) Agent: NOONAN, Kevin, E.; McDonnell Boehnen Hulbert & Berghoff, Suite 3200, 300 South Wacker Drive, Chicago, IL 60606 (US).	(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(54) Title: HIGH FOAMING DETERGENT COMPOSITION HAVING NON-IONIC SURFACTANT BASE		
(57) Abstract Disclosed are aqueous liquid cleaning compositions, the compositions being free of anionic surfactants and comprising: (a) linear alcohol ethoxylate; (b) amine oxide or betaine; and other, optional components, such as a cationic ammonium compound.		

HIGH FOAMING DETERGENT COMPOSITION HAVING NON-IONIC SURFACTANT BASE

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Background of the Invention

5 This application is a continuation-in-part of International Application PCT/US97/06211 filed April 14, 1997, which is a continuation-in-part of U.S. Patent Application Serial No. 08/631,938, filed April 15, 1996.

Field of the Invention

10 This invention relates to formulations for manually washing dishes, hand soaps, and for high foaming cleaning compositions.

Description of the Related Art

15 Light-duty liquid detergent formulations for kitchen surfaces are well known. Kitchen surfaces include counter tops, stove tops, dishes and any other hard surface commonly found in kitchen environments. The term "dishes" includes any utensils involved in food preparation or consumption. Kitchen surfaces, particularly dishes, must be washed free of food residues, greases, proteins, starches, gums, dyes, oils and burnt organic residues.

20 Most of the consumer accepted formulations in use include anionic synthetic surfactants with or without a nonionic surfactant. Many of such formulations contain a sulfonate-type anionic surfactant, for example, an alkylbenzene sulfonate or an alkane sulfonate, in conjunction with a sulfate or alkyl ether sulfate, or a nonionic surfactant, for example, an alcohol ethoxylate, an alkyl phenol ethoxylate, a mono- or diethanolamide or an amine oxide. The sulfonate material generally predominates.

25 It is the anionic surfactant that provides the typical high foaming (suds) characteristics generally associated with dish washing formulations. Foam (suds) is the cleaning efficacy signal relied on by consumers. Nonionic surfactants generally do not provide good foaming characteristics.

30 U.S. Patent No. 2,746,928 discloses that it is not possible to mix anionic surface-active agents with quaternary ammonium germicides. The cationic quaternary ammonium germicide reacts with the anionic surface-active agent resulting in a reduction in germicidal and detergent activity.

 Thus, anionic surfactants are incompatible with cationic quaternary antimicrobial surfactants and nonionic surfactants do not normally provide significant foaming capability to liquid formulations. Therefore, dish washing liquids combining good foaming and antimicrobial

activities are not available to the consumer.

Solutions to the problems posed by the incompatibility of cationic and anionic surfactants have focused on various non-ionic surfactant systems. While having the potential to overcome the known compatibility problems, such systems are not capable of the cleaning efficacy and foam volume demanded by consumers. Hence, there remains a critical need for cleaning compositions based on non-ionic surfactant systems that provide excellent cleaning with high foam volume.

SUMMARY OF THE INVENTION

In general, anionic surfactant systems such as those found in the current light duty liquids are classified as high foamers. Conversely, nonionic surfactant systems are classified as low foamers.

alta volumen-espuma y estabilidad-espuma.

5 By careful selection and extensive experimentation, we have identified nonionic and nonionic/amphoteric surfactant mixtures that produce consumer acceptable foam comparable to commercial dish washing liquids that use anionic detergents. The useful nonionic surfactants include ethoxylates that have various chain lengths not exceeding 12 carbon atoms and degrees of ethoxylation that allow the dish washing liquid to be effective on a wide range of food soils while providing excellent flash foam volume and foam stability. This system provides the consumer with effective cleaning on, but not limited to, greasy food soils, fatty food soils, and oily food soils.

15 The invention provides surfactant compositions based on nonionic surfactant components that function as cleaning compositions. Further included in the invention are disinfectant hand soaps, body washes, disinfectant or antibacterial dishwashing liquids, and conditioning shampoos. Each of these latter cleaning compositions includes at least one cationic ammonium salt. The specific cationic salts are selected depending on the ultimate use or function of the cleaning composition.

20 Certain formulations of this invention will control the presence and spread of bacteria on hard surfaces in the kitchen environment, especially dishes. In this context, the invention is a microbiological active quaternary ammonium salt ingredient homogeneously incorporated into a nonionic aqueous surfactant system. Unexpectedly, the formulations of the invention have excellent flash foaming and residual foaming capability although no anionic surfactants are included.

25 The invention also provides personal care compositions including a quaternary ammonium compound which is a conditioning compound.

Thus, the invention provides hand soap compositions comprising a nonionic surfactant base in combination with at least one cationic ammonium compound. The ammonium compound may be an antibacterial compound or a conditioning agent, or both. Certain hand soap formulations will include a conditioning agent and an antimicrobial compound. Similar formulations may be formulated to function as conditioning shampoos.

The unexpected foaming properties of the formulations of the invention are illustrated in the examples. The foaming properties are due to the carefully balanced mix of nonionic

surfactants. The formulations tested in these examples contain preferred concentrations of ingredients. 180 178

Thus, the invention provides aqueous liquid cleaning compositions, the compositions being free of anionic surfactants and consisting essentially of a nonionic surfactant system and a cationic ammonium compound.

Significantly, the invention also provides high foaming nonionic or nonionic/amphoteric systems that are excellent grease cutters.

The nonionic surfactant system may comprise (1) from about 0.1-50% by weight based on the weight of the composition of a linear alcohol ethoxylate having an average carbon chain length of no more than 12 carbon atoms; and (2) a surfactant member selected from the group consisting of amine oxides and betaines. In these compositions, the total concentration of active components in the composition based on the weight of the composition is at least about 5%.

Optional non-ionic surfactants include alkanolamides, alkyl polysaccharides, betaines, and polyhydroxy fatty acid amides. In various embodiments of the invention, these optional components may replace a portion of the alcohol ethoxylate.

The nonionic surfactant systems of the invention may be combined with a variety of cationic ammonium compounds, such as for example, quaternary ammonium compounds or cationic conditioning agents, to produce a cleaning composition that functions as dishwashing cleaner such as a an antimicrobial dishwashing liquid or handsoap or as a conditioning cleaner such as a conditioning shampoo.

Formulations of the invention can be utilized as body washes and soaps, facial cleanser, bath gels, and bubble bathes.

In addition to providing styling and conditioning to the hair, the inventive formulations provide for repair of split ends.

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acid carbon atoms, from about 1-4% of a fatty acid monoethanolamide having an average of about 10-18 fatty acid carbon atoms; and an antibacterial effective amount of an antibacterial quaternary ammonium compound. A preferred antibacterial quaternary ammonium compound is an alkyl dimethyl benzyl ammonium chloride. The balance of the composition is water. Such a composition may also contain an emulsifier or thickener such as xanthan gum, as well as fragrances, etc.

Still another particularly preferred formulation according to the invention is an aqueous liquid cleaning composition, the compositions being free of anionic surfactants and consisting essentially of:

10 (a) from about 13-19% by weight based on the weight of the composition of a linear alcohol ethoxylate having an average carbon chain length of no more than 12 carbon atoms; and;

(b) from about 3-7% by weight of the composition of a mono- or dialkanolamide; and

15 (d) from about 5-10% by weight of the composition of an alkylpolyglycoside.

Yet another composition consists essentially of:

(a) from about 13-19% by weight based on the weight of the composition of a sulfobetaine;

20 (b) from about 5-20% by weight of the composition of an amine oxide, a betaine, or mixture thereof;

(c) from about 3-7% by weight of the composition of a mono- or dialkanolamide; and

25 (d) from about 3-7% by weight of the composition of an alkylpolyglycoside, the total concentration of surfactants in the composition being from about 30-35% by weight of the composition.

Another preferred aspect of the invention is a detergent composition suitable for preparing an aqueous, liquid cleaning formulation, the detergent composition comprising, based on the total weight of active components in the composition:

30 (a) from about 10-70% by weight of an alcohol ethoxylate having an average of 6-12 carbon atoms and an average of 4-15 moles of ethylene oxide;

(b) from about 15-60% by weight of an amine oxide, a betaine or mixture thereof;

(c) from about 5-20% by weight of an alkanolamide having an average of 10-16 carbon atoms.

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In yet another preferred aspect, the invention provides a detergent composition suitable for preparing an aqueous, liquid cleaning formulation, the detergent composition comprising, based on the total weight of active components in the composition:

- a) from about 25-60% by weight an alcohol ethoxylate having an average of 6-12 carbon atoms and containing an average of from about 4-15 moles of ethylene oxide where the concentration of alcohol ethoxylate in the composition is of the total surfactant present by weight;
- b) from about 15-55% by weight of an amine oxide, a betaine or mixture thereof; and
- c) 5-20% by weight of an alkanolamide having an average of from 10-16 carbon atoms; and
- d) up to about 20% by weight of a cationic surfactant.

Another preferred aspect of the invention is an aqueous cleaning formulation comprising from about 5% to 60% by weight of the formulation of a detergent composition,

the detergent composition comprising, based on the total weight of active components in the detergent composition:

- (a) from about 25-60% by weight of an alcohol ethoxylate having an average of 8-10 carbon atoms and containing an average of 5-12 moles of ethylene oxide;
- (b) from about 15-55% by weight of an alkyl dimethyl amine oxide, an alkyl amido propyl dimethyl amine oxide, an alkyl amido propyl betaine, or a mixture thereof;
- (c) from about 9-16% by weight of an alkanolamide having an average of 10-16 carbon atoms; and
- (d) from about 3-10% by weight of biocidal cationic surfactant.

Optional, non-essential ingredients include fragrances, dyes, stabilizers, thickeners, etc.

Nonionic surfactants

The surfactants suitable for use in the inventive compositions include the following nonionic surfactants.

Alcohol ethoxylates

In the condensation products of aliphatic alcohols with ethylene oxide, i.e., alcohol

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ethoxylates, the alkyl chain of the aliphatic alcohol can either be straight or branched and generally contains from about 5 to about 22 carbon atoms. The chain of ethylene oxide can contain from 2 to 30 ethylene oxide moieties per molecule of surfactant. Examples of such ethoxylated alcohols include the condensation product of about 6 moles of ethylene oxide with 1 mole of tridecanol, myristyl alcohol condensed with about 10 moles of ethylene oxide per mole of myristyl alcohol, the condensation product of ethylene oxide with coconut fatty alcohol wherein the coconut alcohol is a mixture of fatty alcohols with alkyl chains varying from 10 to 14 carbon atoms and wherein the condensate contains about 6 moles of ethylene oxide per mole of alcohol, and the condensation product of about 9 moles of ethylene oxide with the above-described coconut alcohol. Examples of commercially available nonionic surfactants of this type include Tergitol 15-S-9 marketed by the Union Carbide Corporation, Neodol 23-7 marketed by the Shell Chemical Company and Kyro EOB marketed by the Procter & Gamble Company.

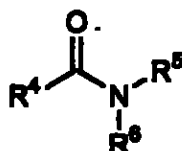
A preferred concentration for the alcohol ethoxylate in the composition is from about 10-70% of the total active surfactant by weight; i.e., it is from about 10-70% by weight based on the total weight of active components. A more preferred range is 25-60% by weight. A most preferred range is 40-60% by weight.

Generally, the alcohol ethoxylates have an average of 6-12 carbon atoms and contain an average of about 4-15 moles of ethylene oxide. Preferably, the alcohol ethoxylates have an average of 8-10 carbon atoms and an average of about 5-12 moles ethylene oxide. The most preferred alcohol ethoxylates are selected from C_{9-11} alkyl ethoxylate (8EO), C_{8-10} alkyl ethoxylate (4EO), C_{8-10} alkyl ethoxylate (9EO), C_{8-10} alkyl ethoxylate (12 EO), C_{11} alkyl ethoxylate (5 EO), and a C_{11} alkyl ethoxylate (7EO).

Amide Surfactant

The amide type of nonionic surface active agents includes the ammonia, monoethanol and diethanolamides of fatty acids having an acyl moiety of from about 7 to about 18 carbon atoms. These acyl moieties are normally derived from naturally occurring glycerides, e.g., coconut oil, palm oil, soybean oil and tallow, but can be derived synthetically, e.g., by the oxidation of petroleum, or by the Fischer-Tropsch process.

The amide surfactants useful herein may be selected from those aliphatic amides of the general formula:



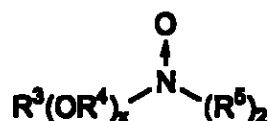
wherein R^4 is hydrogen, alkyl, or alkylol and R^5 and R^6 are each hydrogen, C_1 - C_4 alkyl, C_2 - C_4 alkylol, or C_2 - C_4 alkylenes joined through an oxygen atom, the total number of carbon atoms in R^4 , R^5 and R^6 being from about 9 to about 25. A further description and detailed examples of these amide nonionic surfactants are contained in U.S. Pat. No. 4,070,309, issued to Jacobsen on Jan. 24, 1978. That patent is hereby incorporated herein by reference.

Preferred amide surfactants have an average of from 10-16 carbon atoms in the portion of the molecule contributed by the fatty acid. More preferably, the amide surfactants have an average of from 8-10 carbon atoms in the fatty portion. Most preferred amide surfactants are lauric (average of C_{12}) myristic (average of C_{14}) mono ethanolamide, lauric diethanolamide, lauric monoethanolamide, and lauric monoisopropanolamide.

A preferred concentration of the amide surfactants in the composition is 5-20% of the total active surfactant by weight. A more preferred range is 9-16% by weight.

Amine oxide

Amine oxides useful in the present invention include long-chain alkyl amine oxides, i.e., those compounds having the formula



wherein R^3 is selected from an alkyl, hydroxyalkyl, acylamidopropyl and alkyl phenyl group, or mixtures thereof, containing from 8 to 26 carbon atoms, preferably 8 to 16 carbon atoms; R^4 is an alkylene or hydroxyalkylene group containing from 2 to 3 carbon atoms, preferably 2 carbon

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

DIVISION DE NUEVAS CREACIONES

2020

Bogotá, D.C., Septiembre 15 de 2008

Abogada

JIMENA ESCOBAR URIBE

ASUNTO	Radicación No.	02 071 984
	Trámite	002
	Evento	001
	Actuación	430
	Oficio No.	10978
	Folios	0

Como resultado del examen de patentabilidad de la solicitud de patente de invención, realizado según lo establece el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se notifica el siguiente concepto técnico:

Título de la solicitud: "Composición Limpiadora Suave que tiene Espuma Estable".

1. Documentos estudiados

Para el presente estudio se tuvieron en cuenta el capítulo descriptivo comprendido en los folios 7 – 50 y el capítulo reivindicatorio de los folios 51 – 56 de la solicitud.

2. Objeto de la Invención

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

Las reivindicaciones 1 –23 se refieren a una composición limpiadora que comprende:

un agente activo de superficie no iónico glicósido

un agente activo de superficie de betaina

un agente activo de superficie anfótero

y no contiene agentes activos de superficie aniónicos.

La reivindicación 24 se refiere al uso de la composición de la reivindicación 1.

Las reivindicaciones 25 y 26 se refieren al conjunto formado por una composición y un instrumento (limpión, toalla, malla, esponja ó cepillo).

El problema planteado en esta solicitud es la necesidad de una composición limpiadora para la piel y el cabello capaz de producir espuma estable y bajo grado de irritación de los ojos y la piel.

Para resolver este problema técnico la solicitud en estudio proporciona una composición limpiadora que comprende:
 un agente activo de superficie no iónico glicósido
 un agente activo de superficie de betaina
 un agente activo de superficie anfótero
 y no contiene agentes activos de superficie aniónicos.

El objeto de la invención definido anteriormente se clasificó de acuerdo con la IPC: A 61 K 31/45 // 31/50 // 31/50.

También se reivindica prioridad de la Solicitudes de Patente de los Estados Unidos US 09 931 703 de agosto 16 de 2001 y US 09 954 335 de septiembre 17 de 2001, con respecto a las cuales la fecha de presentación de la actual solicitud cumple el plazo máximo permitido.

3. Usos

El artículo 21 de la Decisión 486 de la Comisión de la Comunidad Andina establece que: *"Los productos o procedimientos ya patentados, comprendidos en el estado de la técnica, de conformidad con el artículo 16 de la presente Decisión, no serán objeto de nueva patente, por el simple hecho de atribuírse un uso distinto al originalmente comprendido por la patente inicial"*.

El artículo 14 de la Decisión 486 de la Comisión de la Comunidad Andina establece que *"Los Países Miembros otorgarán patentes para las invenciones, sean de producto o de procedimiento, en todos los campos de la tecnología, siempre que sean nuevas, tengan nivel inventivo y sean susceptibles de aplicación industrial"*.

El Artículo 19 de la Decisión 486 de la Comisión de la Comunidad Andina establece que *"Se considerará que una invención es susceptible de aplicación industrial, cuando su objeto pueda ser producido o utilizado en cualquier tipo de industria, entendiéndose por industria la referida a cualquier actividad productiva, incluidos los servicios."*

La reivindicación 24 se refiere al uso de la composición de la reivindicación 1.

Se aclara que, de acuerdo con el Art 14, no se puede otorgar patente a usos porque estos no son un producto ni un procedimiento tecnológico.

De otro lado, de acuerdo con el Art 19, se considera que los usos no tienen aplicación industrial porque no se refiere a un tipo de producción ó utilización en ningún tipo de industria.

4. Unidad de invención

El artículo 25 de la Decisión 486 establece: *"La solicitud de patente sólo podrá comprender una invención o un grupo de invenciones relacionadas entre sí, de manera que conformen un único concepto inventivo"*.

En una solicitud de patente se puede reivindicar:

- a) una sola invención; o
 - b) un grupo de invenciones relacionadas entre sí por un único concepto inventivo.
- Cuando se trate del caso b), se debe considerar que el concepto inventivo único que relaciona las invenciones debe ser técnico, cumplir por sí mismo con los requisitos de novedad y nivel inventivo, y ser común a todas las reivindicaciones.

Se observa que las reivindicaciones 25 y 26 que se refieren al conjunto formado por una composición y un instrumento (limpión, toalla, malla, esponja ó cepillo),

no mantienen el principio de la unidad de invención porque la composición y el instrumento no pertenecen al mismo campo técnico.

Debe hacerse la corrección respectiva.

5. Determinación del Estado de la Técnica

El artículo 16 de la decisión 486 de la comisión de la Comunidad Andina que establece que *"El estado de la técnica comprenderá todo lo que haya sido accesible al público por una descripción escrita u oral, utilización, comercialización o cualquier otro medio antes de la fecha de presentación de la solicitud de patente o, en su caso, de la prioridad reconocida."*

Solo para el efecto de la determinación de la novedad, también se considerará dentro del estado de la técnica, el contenido de una solicitud de patente en trámite ante la oficina nacional competente, cuya fecha de presentación o de prioridad fuese anterior a la fecha de presentación o de prioridad de la solicitud de patente que se estuviese examinando, siempre que dicho contenido esté incluido en la solicitud de fecha anterior cuando ella se publique o hubiese transcurrido el plazo previsto en el artículo 40".

Considerando que la fecha de presentación de la primera solicitud de patente de la cual se reivindica prioridad es Agosto 16 de 2001, se consultaron las bases de datos y los archivos con que cuenta la entidad con fecha de publicación anterior y se encontraron los siguientes documentos que anticipan el objeto de esta solicitud:

No.	Documento	Título	Fecha de Publicación
D1	US 6 224 886	Skin wash compositions comprising triclocarban and surfactants	Mayo 1, 2001
D2	WO 99 19438	High Foaming detergent Composition having non-ionic Surfactant Base	Jul 29, 1999

6. Evaluación de los requisitos de Patentabilidad

El artículo 14 de la Decisión 486 de la Comisión de la Comunidad Andina establece que *"Los Países Miembros otorgarán patentes para las invenciones, sean de producto o de procedimiento, en todos los campos de la tecnología, siempre que sean nuevas, tengan nivel inventivo y sean susceptibles de aplicación industrial".*

En cumplimiento del artículo 14 de la Decisión 486, se procedió a evaluar el cumplimiento de los requisitos de novedad, nivel inventivo y aplicación industrial, con el fin de establecer la patentabilidad de la invención reivindicada en la solicitud en estudio.

Evaluación de la Novedad

El Art. 16 de la Decisión 486 de la Comisión de la Comunidad Andina establece: *"Una invención se considerará nueva cuando no está comprendida en el estado de la técnica. El estado de la técnica comprenderá todo lo que haya sido accesible al público por una descripción escrita u oral, utilización comercialización o cualquier otro medio antes de la fecha de presentación de la solicitud de patente, o, en su caso, de la prioridad reconocida."*

Solo para el efecto de la determinación de la novedad, también se considerará dentro del estado de la técnica, el contenido de una solicitud de patente en trámite ante la oficina nacional competente, cuya fecha de presentación o de prioridad fuese anterior a la fecha de presentación o de prioridad de la solicitud de patente que se estuviese

examinando, siempre que dicho contenido esté incluido en la solicitud de fecha anterior cuando ella se publique o hubiese transcurrido el plazo previsto en el Art 40".

Las reivindicaciones 1 –23 se refieren a una composición limpiadora que comprende:

un agente activo de superficie no iónico glicósido
 un agente activo de superficie de betaina
 un agente activo de superficie anfótero
 y no contiene agentes activos de superficie aniónicos.

D1 enseña (ver columnas 2 y 6) una composición limpiadora que comprende:
 un agente activo de superficie no iónico glicósido
 un agente activo de superficie anfótero (entre los que se incluyen las betainas, definidas en la columna 2 como: compuestos que tienen un grupo carboxilato y un grupo de amonio cuaternario separados por una molécula de metileno)
 y no contiene agentes activos de superficie aniónicos.

D2 enseña (ver páginas 3 y 4) una composición limpiadora que comprende:
 un agente activo de superficie no iónico (como alquil glicósido y como betainas)
 un agente activo de superficie anfótero.

Se observa que los elementos característicos de las composiciones reivindicadas, es decir un agente activo de superficie no iónico glicósido, un agente activo de superficie de betaina y un agente activo de superficie anfótero, ya eran conocidos en D1 y D2; por lo cual las composiciones de las reivindicaciones 1 – 23 no pueden considerarse nuevas.

Evaluación del Nivel Inventivo

El artículo 18 de la Decisión 486 de la Comisión de la Comunidad Andina establece que Se considerará que una invención tiene nivel inventivo, si para una persona del oficio normalmente versada en la materia técnica correspondiente, esa invención no hubiese resultado obvia ni se hubiese derivado de manera evidente del estado de la técnica.

Se observa que:

- (a) debido a que los compuestos: agente activo de superficie no iónico glicósido, agente activo de superficie de betaina y agente activo de superficie anfótero; eran conocidos en las anterioridades, una persona de habilidades ordinarias en el arte los adaptaría fácilmente a la preparación de la composición reivindicada;
- (b) las reivindicaciones de esta solicitud no mencionan una característica que conceda un efecto diferente o especial a los compuestos, ni a las composiciones, que pueda considerarse como un aporte a la técnica, así que son obvios para una persona versada en la materia y
- (c) el problema planteado en esta solicitud que era la necesidad de una composición limpiadora para la piel y el cabello capaz de producir espuma estable y bajo grado de irritación de los ojos y la piel se resuelve proporcionando una composición limpiadora que comprende: un agente activo de superficie no iónico glicósido, un agente activo de superficie de betaina y un agente activo de superficie anfótero, es decir de la misma manera como se resolvía en las anterioridades;
- (d) el resultado obtenido: es decir composición limpiadora que comprende: un agente activo de superficie no iónico glicósido, un agente activo de superficie de betaina y un agente activo de superficie anfótero no es

Inesperado.

- (e) no parece haberse superado un prejuicio técnico anterior, con los compuestos: agente activo de superficie no iónico glicósido, agente activo de superficie de betaina y agente activo de superficie anfótero, ni con las composiciones propuestas de manera que el objeto reivindicado no tiene nivel inventivo.

7. Conclusión

En conclusión, los requisitos de patentabilidad de la presente solicitud están afectados así:

Item	Documento	Reivindicaciones afectadas	Requisito que afecta
D1	US 6 224 886	1 - 23	Novedad y Nivel inventivo
D2	WO 99 19438	1 - 23	Novedad y Nivel inventivo

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

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


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

El anterior requerimiento fue notificado por fijación en lista, de fecha
28 SET. 2006

CONCEPTO TÉCNICO No. 1459	EXAMINADOR TÉCNICO Código 202007
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