<table>
<thead>
<tr>
<th>(54) Title</th>
<th>Composition containing an opacifier or pearlescent agent and at least one fatty alcohol</th>
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</thead>
<tbody>
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<tr>
<td>(71) Applicant(s)</td>
<td>L’Oreal</td>
</tr>
<tr>
<td>(72) Inventor(s)</td>
<td>Rainer Muller; Bernard Beaquey</td>
</tr>
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<td>GRIFFITH HACK, GPO Box 1285K, MELBOURNE VIC 3001</td>
</tr>
</tbody>
</table>
ABSTRACT

COMPOSITION CONTAINING AN OPACIFIER OR PEARLESCENT AGENT AND AT LEAST ONE FATTY ALCOHOL

The invention relates to novel compositions comprising a surfactant base, at least one conditioner, at least one linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, and at least one opacifier and/or pearlescent agent.

The invention also relates to the use of a linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, to give a pearling effect to and/or to enhance the pearling effect of compositions comprising at least one surfactant base and at least one opacifier and/or pearlescent agent.

The compositions according to the invention are used in particular as rinse-out products, in particular for washing and conditioning keratin substances.
AUSTRALIA
Patents Act 1990

COMPLETE SPECIFICATION
STANDARD PATENT

Applicant(s):

L'ORÉAL

Invention Title:
COMPOSITION CONTAINING AN OPACIFIER OR PEARLESCENT AGENT AND AT LEAST ONE FATTY ALCOHOL.

The following statement is a full description of this invention, including the best method of performing it known to me/us:
1A

COMPOSITION CONTAINING AN OPACIFIER OR PEARLESCENT AGENT AND AT LEAST ONE FATTY ALCOHOL

The present invention relates to a composition comprising at least one surfactant base, at least one linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, and at least one opacifier and/or pearlescent agent, to its use as a pearling agent, to a cosmetic composition comprising, in a cosmetically acceptable medium, at least one surfactant base, at least one linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, at least one opacifier and/or pearlescent agent and at least one conditioner for keratin substances. The invention also relates to the use of the said composition as an agent for suspending insoluble conditioners.

It is well known that hair which has been sensitized (i.e. damaged and/or embrittled) to varying degrees under the action of atmospheric agents or under the action of mechanical or chemical treatments, such as dyeing, bleaching and/or permanent-waving operations, is often difficult to disentangle and to style, and lacks softness.

It has already been recommended to use conditioners, in particular insoluble conditioners, in
compositions for washing or caring for keratin substances such as the hair in order to facilitate disentangling of the hair and to make it soft, shiny and supple.

Given the insoluble nature of certain conditioners such as, for example, silicones or oils, it is sought to keep the conditioners uniformly dispersed in the medium without, however, reducing the viscosity or the detergent or lathering properties of the compositions. The silicones should also be delivered onto the treated keratin substances so as to give them, after the application, properties of softness, sheen and disentanglement.

It is also known that products, in particular cosmetic products, which have an iridescent, shimmering or metallized appearance or effect are widely favoured by consumers on account of their aesthetic appeal and the fact that they give the product an appearance of richness. The agents which provide this effect are pearling agents generally comprising crystals which remain dispersed in the compositions and which reflect light.

The term "pearling agent" means an agent which produces an iridescent, shimmering or metallized appearance or effect.

Few means are currently available for effectively keeping insoluble conditioners in suspension, since this is a difficult problem to solve;
to this end, it has already been proposed to use long-chain ester derivatives or polysaccharides such as xanthan gum. However, long-chain ester derivatives can present crystallization problems which lead to a change in the viscosity of the compositions over time; gelling agents also have drawbacks, namely, on the one hand, it is difficult to develop a foam with detergent compositions containing xanthan gum (poor foam initiation), and, on the other hand, the compositions lack a smooth texture and they flow in blobs, which users do not appreciate.

Long-chain ether or thioether derivatives, such as those described in patent applications EP 457,688 and WO 98/03155, are also known. However, these agents opacify the compositions without giving them any or giving them insufficient pearling effect.

It has already been attempted to improve the pearling effect by adding thickeners and/or other pearlescent agents, but, in this case, the viscosity becomes too large and/or the composition is no longer stable.

The Applicant has discovered, and it is this which forms the subject of the invention, that the use of a linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms gives a pearling effect to and/or improves the pearling effect of compositions comprising at least one surfactant base
and at least one opacifier and/or pearlescent agent.

A subject of the invention is thus compositions comprising at least one surfactant base, at least one linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, and at least one opacifier and/or pearlescent agent.

The compositions according to the invention can be used as a pearlescent base for cosmetic compositions, to give a pearling effect which is better than that obtained with the opacifier and/or pearlescent agent.

Another subject of the invention is the use of a linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, and of an opacifier, as pearlescent base.

The compositions show very good homogeneity and good stability of the pearling agent, as well as a viscosity which is satisfactory for applying them to keratin substances.

Other subjects of the invention will become apparent on reading the description and the examples which follow.

The linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon
atoms more particularly comprises at least 70% by weight of C22 alcohol relative to the total weight of the mixture.

Generally, the mixture of linear, saturated, long-chain fatty alcohols contains C16 to C24 fatty alcohols. The C16 and C24 fatty alcohols each generally represent less than 2% by weight, and the C18 chains less than 10% by weight, relative to the total weight of the mixture.

Such fatty alcohols are, in particular, the products sold under the name Nafol 1822 C by the company Condea, which contains about 0.5% of C16, 4-6% of C18, 15-19% of C20, 74-78% of C22 and about 1.5% of C24, or the product sold under the name Nafol 2298 by the company Condea, which contains 98% C22 alcohol.

The pearlescent agents and/or opacifiers which can be used according to the invention can be chosen from:

A) fatty dialkyl ethers which are solid at a temperature of less than or equal to about 30°C, such as, for example, the dialkyl ethers of formula (I):

\[ R-O-R' \]  

(I)

in which:

R and R', which may be identical or different, denote a saturated or unsaturated, linear or branched alkyl radical comprising from 12 to 30 carbon atoms and
preferably from 14 to 24 carbon atoms, R and R' being chosen such that the compound of formula (I) is solid at a temperature of less than or equal to about 30°C. More particularly, R and R' are identical.

Preferably, R and R' denote a stearyl radical.

The dialkyl ethers which can be used according to the invention in the compositions are insoluble.

These compounds can be prepared according to the process described in patent application DE 4,127,230.

A distearyl ether which can be used in the context of the present invention is sold in particular under the name Cutina KE 3178 by the company Henkel.

B) alcohols containing from 27 to 48 carbon atoms and comprising one or two ether and/or thioether or sulphoxide groups corresponding to formula (II):

\[ R_1-X-[C_2H_3(OH)]-CH_2-Y-R_2 \]  

in which R1 and R2 denote, independently of each other, linear C12 to C24 alkyl groups;

X denotes an oxygen atom, a sulphur atom or a sulphoxide or methylene group;

Y denotes an oxygen atom, a sulphur atom or a sulphoxide or methylene group;

when Y denotes a methylene group, the sum of the number of carbon atoms present in the groups R1 and R2 has a
value ranging from 24 to 44 and preferably from 28 to 40 inclusive;
when Y does not denote a methylene group, the sum of the carbon atoms present in the groups R1 and R2 has a value ranging from 24 to 44 and preferably from 28 to 40 inclusive;
when X or Y denotes sulphone, Y or X does not denote sulphur.

The compounds of formula (II) preferably used in accordance with the invention are those for which X denotes oxygen, Y denotes methylene and R1 and R2 denote radicals containing 12 to 22 carbon atoms.

These compounds can be prepared according to patent EP 457,688.

According to the invention, the linear, saturated fatty alcohol comprising at least 50% by weight of alcohol containing 22 carbon atoms can represent from 0.5% to 15% by weight, preferably from 0.5% to 5% by weight and even more preferably from 0.5% to 3% by weight, relative to the total weight of the final composition.

According to the invention, the pearlescent agent and/or opacifier can represent from 0.5% to 15% by weight, preferably from 0.5% to 5% by weight and even more preferably from 1% to 3% by weight, relative to the total weight of the final composition.

The opacifier/C22 fatty alcohol ratio is generally between 0.2 and 8 and preferably between 0.3
According to one preferred variant of the invention, the cosmetic compositions can also contain conditioners for keratin substances.

Another subject of the invention is thus novel cosmetic compositions, in particular foaming conditioning and washing compositions, comprising, in a medium which is cosmetically acceptable, a surfactant base, at least one conditioner, at least one linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, and at least one opacifier and/or pearlescent agent.

The compositions thus prepared also have good detergent and foaming properties and make keratin substances, in particular the hair and/or the skin, feel very soft.

When they are applied to the hair, in addition to their washing properties, these compositions also have hair conditioning properties, i.e. treated hair is smooth, disentangles easily and feels soft. The hair looks natural and non-greasy.

The compositions according to the invention containing conditioners are stable. In particular, no uncontrolled release of the conditioner or thickener from the composition over time takes place. Lastly, the compositions have a non-ropey and melting texture. The foam is airy and rinses out easily.
Another subject of the invention consists of the washing and conditioning process using such compositions.

Another subject of the invention is the use of at least one linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, and at least one opacifier and/or pearlescent agent, as an agent for suspending an insoluble conditioner in a cosmetic composition, in particular a foaming conditioning and washing composition, containing a surfactant base in a cosmetically acceptable aqueous medium.

When the composition contains at least one conditioner, these conditioners are generally chosen from poly-α-olefins, fluoro oils, fluoro waxes, fluoro gums, carboxylic acid esters, cationic polymers, silicones, mineral, plant or animal oils, ceramides and pseudoceramides, and mixtures thereof.

The cosmetically acceptable medium preferably consists of water or a mixture of water and cosmetically or dermatologically acceptable solvents such as monoalcohols, polyalcohols, glycol ethers or fatty acid esters, which can be used alone or as a mixture.

Mention may be made more particularly of lower alcohols such as ethanol or isopropanol, polyalcohols such as diethylene glycol, glycerol or
sorbitol, glycol ethers and alkyl ethers of glycol or of diethylene glycol.

The composition of the invention can also contain at least one additive chosen from sequestering agents, softeners, foam modifiers, dyes, other pearlescent agents, hydrating agents, antidandruff or antiseborrhoeic agents, other suspending agents, fatty acids containing linear or branched C₁₆-C₄₀ chains, hydroxy acids, electrolytes, thickeners, fatty acid esters, glycercyl esters of fatty acids, surfactants, fragrances, preservatives, sunscreens, proteins, vitamins, polymers and any other additive conventionally used in cosmetics.

These additives are present in the composition according to the invention in proportions which can range from 0 to 40% by weight relative to the total weight of the composition. The precise amount of each additive depends on its nature and can readily be determined by a person skilled in the art.

Needless to say, a person skilled in the art will take care to select the optional compound(s) to be added to the composition according to the invention such that the advantageous properties intrinsically associated with the composition in accordance with the invention are not, or are not substantially, adversely affected by the addition envisaged.

The compositions according to the invention can be in the form of a gel, a milk, a cream, a more or
less thickened lotion or a foam.

The compositions in accordance with the invention can be used for treating keratin substances such as the hair, the skin, the eyelashes, the eyebrows, the nails, the lips or the scalp, and more particularly the hair.

The compositions can also be used for washing and cleansing keratin substances such as the hair and the skin.

The compositions according to the invention are generally used as products in particular for washing, caring for, conditioning or maintaining the hair style or for shaping keratin substances such as the hair.

The compositions of the invention can be, more particularly, in the form of a shampoo, a rinse-out or leave-in conditioner, compositions for permanent-waving, straightening, dyeing or bleaching the hair, or alternatively in the form of compositions to be applied before or after dyeing, bleaching, permanent-waving or straightening the hair, or between two steps of a permanent-waving or hair-straightening operation. Preferably, the compositions are washing and foaming compositions for the hair and/or the skin.

In particular, the compositions according to the invention are foaming detergent compositions such as shampoos, shower gels and bubble baths. In this embodiment of the invention, the compositions comprise
a washing surfactant base, which is generally aqueous.

The surfactant(s) forming the washing base can be chosen, impartially, alone or as mixtures, from anionic, amphoteric, nonionic, zwitterionic and cationic surfactants.

The minimum amount of washing base is that which is just sufficient to give the final composition a satisfactory foaming and/or detergent power.

Thus, according to the invention, the washing base can represent from 4% to 30% by weight, preferably from 6% to 25% by weight and even more preferably from 8% to 20% by weight, relative to the total weight of the final composition.

The surfactants which are suitable for carrying out the present invention are, in particular, the following:

(i) **Anionic surfactant(s):**

In the context of the present invention, their nature is not really a critical feature.

Thus, by way of example of anionic surfactants which can be used, alone or as mixtures, in the context of the present invention, mention may be made in particular (non-limiting list) of salts (in particular alkali metal salts, especially sodium salts, ammonium salts, amine salts, amino alcohol salts or magnesium salts) of the following compounds: alkyl sulphates, alkyl ether sulphates, alkyl amidoether sulphates, alkylarylpolyether sulphates, monoglyceride
sulphates; alkyl sulphonates, alkyl phosphates, alkylamide sulphonates, alkylaryl sulphonates, \( \alpha \)-olefin sulphonates, paraffin sulphonates; alkyl sulphosuccinates, alkyl ether sulphosuccinates, alkylamide sulphosuccinates; alkyl sulphosuccinamates; alkyl sulphoacetates; alkyl ether phosphates; acyl sarcosinates; acyl isethionates and N-acyl taurates, the alkyl or acyl radical of all of these different compounds preferably containing from 8 to 24 carbon atoms and the aryl radical preferably denoting a phenyl or benzyl group. Among the anionic surfactants which can also be used, mention may also be made of fatty acid salts such as oleic, ricinoleic, palmitic and stearic acid salts, coconut oil acid or hydrogenated coconut oil acid; acyl lactylates in which the acyl radical contains 8 to 20 carbon atoms. It is also possible to use weakly anionic surfactants, such as alkyl D-galactoside uronic acids and their salts, as well as polyoxyalkylenated \((\text{C}_6-\text{C}_{24})\)alkyl ether carboxylic acids, polyoxyalkylenated \((\text{C}_6-\text{C}_{24})\)alkylamido ether carboxylic acids and their salts, in particular those containing from 2 to 50 ethylene oxide groups, and mixtures thereof.

Among the anionic surfactants preferably used according to the invention are alkyl sulphonate and alkyl ether sulphonate salts, and mixtures thereof.
(ii) **Nonionic surfactant(s):**

The nonionic surfactants are, themselves also, compounds that are well known per se (see in particular in this respect "Handbook of Surfactants" by M.R. Porter, published by Blackie & Son (Glasgow and London), 1991, pp. 116-178) and, in the context of the present invention, their nature is not a critical feature. Thus, they can be chosen in particular from (non-limiting list) polyethoxylated, polypropoxylated or polyglycerolated fatty acids, alkylphenols, alpha-diols or alcohols having a fatty chain containing, for example, 8 to 18 carbon atoms, it being possible for the number of ethylene oxide or propylene oxide groups to range in particular from 2 to 50 and for the number of glycerol groups to range in particular from 2 to 30.

Mention may also be made of copolymers of ethylene oxide and of propylene oxide, condensates of ethylene oxide and of propylene oxide with fatty alcohols; polyethoxylated fatty amides preferably having from 2 to 30 mol of ethylene oxide, polyglycerolated fatty amides containing on average 1 to 5, and in particular 1.5 to 4, glycerol groups; polyethoxylated fatty amines preferably having 2 to 30 mol of ethylene oxide; oxyethylenated fatty acid esters of sorbitan having from 2 to 30 mol of ethylene oxide; fatty acid esters of sucrose, fatty acid esters of polyethylene glycol, alkylpolyglycosides, N-alkylglucamine derivatives, amine oxides such as \((C_{10}-C_{14})\)alkylamine oxides or \(N-\)
acylaminopropylmorpholine oxides. It will be noted that the alkylpolyglycosides constitute nonionic surfactants that are particularly suitable in the context of the present invention.

(iii) Amphoteric or zwitterionic surfactant(s):

The amphoteric or zwitterionic surfactants, whose nature is not a critical feature in the context of the present invention, can be, in particular (non-limiting list), aliphatic secondary or tertiary amine derivatives in which the aliphatic radical is a linear or branched chain containing 8 to 18 carbon atoms and containing at least one water-solubilizing anionic group (for example carboxylate, sulphonate, sulphate, phosphate or phosphonate); mention may also be made of (C₈-C₂₀)alkylbetaines, sulphobetaines, (C₈-C₂₀)alkylamido(C₁-C₆)alkylbetaines or (C₈-C₂₀)alkylamido(C₁-C₆)alkylsulphobetaines.

Among the amine derivatives, mention may be made of the products sold under the name Miranol, as described in US patents 2,528,378 and 2,781,354 and classified in the CTFA dictionary, 3rd edition, 1982, under the names Amphocarboxyglycinates and Amphocarboxypropionates, with the respective structures:

\[ R_2-\text{CONHCH}_2\text{CH}_2-N(R_3)(R_4)\text{(CH}_2\text{COO}-) \]  

in which: \( R_2 \) denotes an alkyl radical derived from an acid \( R_2\text{COOH} \) present in hydrolysed coconut oil, a heptyl, nonyl or undecyl radical, \( R_3 \) denotes a beta-
hydroxyethyl group and \( R_4 \) denotes a carboxymethyl group; and

\[ R_2 \cdot \text{CONHCH}_2\text{CH}_2\text{-N}(B)(C) \]  

in which:

5. \( B \) represents \(-\text{CH}_2\text{CH}_2\text{OX}'\), \( C \) represents \(-(\text{CH}_2)_z\text{-Y}'\), with \( z = 1 \) or 2,

\( X' \) denotes the \(-\text{CH}_2\text{CH}_2\text{-COOH} \) group or a hydrogen atom,

\( Y' \) denotes \(-\text{COOH} \) or the \(-\text{CH}_2\text{-CHOH-SO}_3\text{H} \) radical,

\( R_2 \) denotes an alkyl radical of an acid \( R_5\text{-COOH} \) present in coconut oil or in hydrolysed linseed oil, an alkyl radical, in particular a \( C_7, C_9, C_{11} \) or \( C_{13} \) alkyl radical, a \( C_{17} \) alkyl radical and its iso form, or an unsaturated \( C_{17} \) radical.

By way of example, mention may be made of the cocoamphocarboxyglycinate sold under the trade name Miranol C2M concentrate by the company Rhodia Chimie.

(iv) Cationic surfactants:

Among the cationic surfactants, whose nature, in the context of the present invention, is not a critical feature, mention may be made in particular (non-limiting list) of: salts of optionally polyoxyalkylenated primary, secondary or tertiary fatty amines; quaternary ammonium salts such as tetraalkylammonium, alkylamidoalkyltrialkylammonium, trialkylbenzylationmonium, trialkylhydroxyalkylammonium or alkylpyridinium chlorides or bromides; imidazoline derivatives; or amine oxides of cationic nature.

A subject of the invention is also a process
for the cosmetic treatment of keratin substances such as the hair, which consists in applying a composition as defined above to the hair and then, after optionally leaving the composition to stand in the hair, in optionally rinsing it out with water.

The compositions according to the invention can be prepared mainly according to two procedures:

The first consists in heating all the ingredients of the composition to about 80°C with stirring and then allowing the mixture to cool to room temperature. The second consists in preparing a pearlescent concentrate which comprises surfactants, the opacifier or pearlescent agent and the fatty alcohol, water, a pH agent and optionally a preserving agent. The opacifier or pearlescent agent and the fatty alcohol are added with stirring to the mixture of water and surfactants preheated to about 80°C. The temperature is maintained for about 30 minutes and the mixture is then cooled to about 30°C. The required amount of concentrate is then added to the shampoo base at room temperature with the aid of a turbomixer.

The invention will now be illustrated more fully with the aid of the examples which follow, which cannot be considered as limiting it to the embodiments described. In the text hereinbelow, AM means Active Material.
EXAMPLE 1

Three shampoos, of the compositions below, were prepared:

Compositions A and B are according to the invention and composition C is a comparative composition.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium lauryl ether sulphate</td>
<td>14.5 g</td>
<td>14.5 g</td>
<td>14.5 g</td>
</tr>
<tr>
<td>oxyethylenated with 2.2 mol of</td>
<td>g AM</td>
<td>g AM</td>
<td>g Am</td>
</tr>
<tr>
<td>ethylene oxide, as an aqueous</td>
<td>solution containing 70% AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.3 g</td>
<td>2.3 g</td>
<td>2.3 g</td>
</tr>
<tr>
<td>Cocoylbetaine as an aqueous</td>
<td>g AM</td>
<td>g AM</td>
<td>g AM</td>
</tr>
<tr>
<td>solution containing 30% AM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>2 g</td>
<td>-</td>
</tr>
<tr>
<td>Dimethicone (Mirasil DM 500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>from Rhodia Chimie)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>0.3 g</td>
<td>-</td>
</tr>
<tr>
<td>Hydroxyethylcellulose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>crosslinked with epichlorohydrin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and quaternized with trimethyl-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>amine (JR 400 from Union Carbide)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mixture of cetyl alcohol and of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-(hexadecyloxy)-2-octadecanol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(opacifier)</td>
<td>1.5 g</td>
<td>1.5 g</td>
<td>2.5 g</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C22 fatty alcohol (Nafol 1822 C</td>
<td>1 g</td>
<td>1 g</td>
<td>-</td>
</tr>
<tr>
<td>from Condea)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coconut acid monoethanolamide</td>
<td>0.95 g</td>
<td>0.95 g</td>
<td>0.95 g</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preserving agents, fragrance</td>
<td>qs</td>
<td>qs</td>
<td>qs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citric acid, 1 H₂O qs</td>
<td>pH 5.5</td>
<td>pH 5.5</td>
<td>pH 5.5</td>
</tr>
</tbody>
</table>
The pearling effect of compositions A and B according to the invention is better than that of composition C which contains only opacifier.

The foaming properties of compositions A and B are good.

Compositions A and B have good viscosity and are stable.

**EXAMPLE 2**

Three shampoos, of the compositions below, were prepared:

Compositions A and B are according to the invention and composition C is a comparative composition.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
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<td>oxyethylenated with 2.2 mol of</td>
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<td>ethylene oxide, as an aqueous</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>solution containing 70% AM</td>
<td>14.5 g AM</td>
<td>14.5 g AM</td>
<td>14.5 g AM</td>
</tr>
<tr>
<td>Coooylbetaine as an aqueous</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>solution containing 30% AM</td>
<td>2.3 g AM</td>
<td>2.3 g AM</td>
<td>2.3 g AM</td>
</tr>
<tr>
<td>Dimethicone (Mirasil DM 500,000</td>
<td></td>
<td>2 g</td>
<td></td>
</tr>
<tr>
<td>from Rhodia Chimie)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hydroxyethylcellulose quaternized with trimethylamine (JR 400 from Union Carbide) - 0.3 g AM

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Distearyl ether (opacifier)</td>
<td>1.5 g</td>
<td>1.5 g</td>
<td>2.5 g</td>
</tr>
<tr>
<td>C22 fatty alcohol (Nafol 1822 C from Condea)</td>
<td>1 g</td>
<td>1 g</td>
<td>-</td>
</tr>
<tr>
<td>Coconut acid monoethanolamide</td>
<td>0.95 g</td>
<td>0.95 g</td>
<td>0.95 g</td>
</tr>
<tr>
<td>Preserving agents, fragrance</td>
<td>qs</td>
<td>qs</td>
<td>qs</td>
</tr>
<tr>
<td>Citric acid, 1 H₂O qs</td>
<td>pH 5.5</td>
<td>pH 5.5</td>
<td>pH 5.5</td>
</tr>
<tr>
<td>Demineralized water qs</td>
<td>100 g</td>
<td>100 g</td>
<td>100 g</td>
</tr>
</tbody>
</table>

The pearling effect of compositions A and B according to the invention is better than that of composition C which contains only opacifier.

The foaming properties of compositions A and B are good.

Compositions A and B have good viscosity and are stable.

When the Nafol 1822 C is replaced with a fatty alcohol comprising about 44% by weight of C22 alcohol in composition A or B, it is seen that the pearling effect is entirely insufficient.

For the purposes of this specification it will be clearly understood that the word "comprising" means "including but not limited to", and that the word "comprises" has a corresponding meaning.
THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. Cosmetic composition, characterized in that it comprises, in a cosmetically acceptable medium, at least one surfactant base, at least one linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, and at least one opacifier and/or pearlescent agent.

2. Composition according to Claim 1, characterized in that the fatty alcohol or mixture of fatty alcohols comprises at least 70% by weight of alcohol containing 22 carbon atoms relative to the total weight of the mixture.

3. Composition according to either of Claims 1 and 2, characterized in that the pearlescent agents and/or opacifier are chosen from:

A) fatty dialkyl ethers which are solid at a temperature of less than or equal to about 30°C, such as, for example, the dialkyl ethers of formula (I):

\[ R-O-R' \]  

(I)

in which:

R and R', which may be identical or different, denote a saturated or unsaturated, linear or branched alkyl radical comprising from 12 to 30 carbon atoms and
preferably from 14 to 24 carbon atoms, R and R' being chosen such that the compound of formula (I) is solid at a temperature of less than or equal to about 30°C. More particularly, R and R' are identical.

B) alcohols containing from 27 to 48 carbon atoms and comprising one or two ether and/or thioether or sulphoxide groups corresponding to formula (II):

\[ R_1-X-[C_2H_3(OH)]-CH_2-Y-R_2 \quad \text{(II)} \]

in which R1 and R2 denote, independently of each other,

- linear C12 to C24 alkyl groups;
- X denotes an oxygen atom, a sulphur atom or a sulphoxide or methylene group;
- Y denotes an oxygen atom, a sulphur atom or a sulphoxide or methylene group;

when Y denotes a methylene group, the sum of the number of carbon atoms present in the groups R1 and R2 has a value ranging from 24 to 44 and preferably from 28 to 40 inclusive;
when Y does not denote a methylene group, the sum of the carbon atoms present in the groups R1 and R2 has a value ranging from 24 to 44 and preferably from 28 to 40 inclusive;
when X or Y denotes sulphoxide, Y or X does not denote sulphur.

4. Composition according to any one of Claims 1 to 3, characterized in that the pearlescent agents and/or opacifier are chosen from:
A) distearyl ether,
B) compounds of formula (II) for which X denotes oxygen, Y denotes methylene and R1 and R2 denote radicals containing 12 to 22 carbon atoms.

5. Composition according to any one of Claims 1 to 4, characterized in that the fatty alcohol or mixture of fatty alcohols represents from 0.5% to 15% by weight, preferably from 0.5% to 5% by weight and even more preferably from 0.5% to 3% by weight, relative to the total weight of the final composition.

6. Composition according to any one of Claims 1 to 5, characterized in that the opacifier and/or pearlescent agent represents from 0.5% to 15% by weight, preferably from 0.5% to 5% by weight and even more preferably from 1% to 3% by weight, relative to the total weight of the final composition.

7. Composition according to any one of the preceding claims, characterized in that it also comprises at least one conditioner.

8. Composition according to the preceding claim, characterized in that the conditioner is chosen from poly-α-olefins, fluoro oils, fluoro waxes, fluoro gums, carboxylic acid esters, polymers, particularly cationic polymers, silicones, mineral, plant or animal oils, ceramides and pseudoceramides, and mixtures thereof.

9. Composition according to any one of the preceding claims, characterized in that it is in the
form of a gel, a milk, a cream, a more or less thickened lotion or a foam.

10. Composition according to any one of the preceding claims, characterized in that it is a foaming detergent composition, such as shampoos, shower gels or bubble baths.

11. Use of at least one linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, and at least one opacifier and/or pearlescent agent, as an agent for suspending an insoluble conditioner in a cosmetic composition, in particular a foaming conditioning and washing composition, containing a surfactant base in a cosmetically acceptable aqueous medium.

12. Use of a linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, to give a pearling effect to and/or to enhance the pearling effect of compositions comprising at least one surfactant base and at least one opacifier and/or pearlescent agent.

13. Use of a linear, saturated, long-chain fatty alcohol or mixture of fatty alcohols comprising at least 50% by weight of an alcohol containing 22 carbon atoms, and of an opacifier and/or pearlescent agent, as a pearling base.

14. Process for the cosmetic treatment of
keratin substances, in particular the hair, characterized in that it consists in applying a composition as defined according to any one of Claims 1 to 20 to the said substances and then optionally rinsing them with water.

Dated this 13th day of July 1999
L'ORÉAL
By their Patent Attorneys
GRIFFITH HACK
Fellows Institute of Patent and Trade Mark Attorneys of Australia