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(71) **Applicant: L'OREAL** [FR/FR]; 14, rue Royale, 75008 PARIS (FR).

(72) **Inventors: GUILLIER, Nathalie**; 188, rue Paul Hochart, BP553, 94152 CHEVILLY LA RUE (FR). **CHABRIL-LANGEAS, Mathieu**; 188, rue Paul Hochart, BP553, 94152 CHEVILLY LA RUE (FR).

(74) **Agent: PREVEL, Estelle**; D.I.P.I., 9 Rue Pierre Dreyfus, 92110 Clichy (FR).

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(54) **Title:** INVERSE EMULSION COMPRISING SILICA AEROGEL, AN ALKYLPOLYGLYCOSIDE, AND A FATTY ALCOHOL OF WHICH THE FATTY CHAIN IS DIFFERENT THAN THAT OF THE ALKYLPOLYGLYCOSIDE

(57) **Abstract:** A subject of the present invention is a composition in the form of a water-in-oil emulsion comprising: - hydrophobic silica aerogel particles; - at least one alkylpolyglycoside of formula (I) below: R-O-G in which: - the radical R is a linear or branched C_{14}-C_{24} alkyl radical; G represents a reduced sugar comprising from 5 to 6 carbon atoms; and x denotes a value ranging from 1 to 10, preferably 1 to 4; and - at least one fatty alcohol of which the fatty chain is different than that of the alkylpolyglycoside. The composition in accordance with the invention makes it possible to obtain a cosmetic emulsion which has good stability, and also good cosmetic and sensory properties, in 20 particular which is fresh and soft on application, which is non-greasy, non-shiny and non- tacky during and after application, and which provides moisturization and affords a long- lasting immediate and effective mattness effect.

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Inverse emulsion comprising silica aerogel, an alkylpolyglycoside, and a fatty alcohol of which the fatty chain is different than that of the alkylpolyglycoside

The present application relates to a composition, preferably a cosmetic composition, for topical application, which is in the form of a water-in-oil emulsion (inverse emulsion) comprising particles of hydrophobic silica aerogel, at least one suitably selected alkylpolyglycoside and at least one fatty alcohol of which the fatty chain is different than that of the alkylpolyglycoside, and to the use of said composition in the cosmetics and dermatology fields, in particular for caring for, for treating keratin materials, and in particular for caring for, protecting and/or making up bodily or facial skin, or for hair care.

In the cosmetics field, and more particularly in the skincare, makeup and photoprotection field, conventional water-in-oil inverse emulsions are very advantageous for their application properties, in particular their glide capacity, and their very characteristic sensory effect, in particular a feeling of softness and a silky effect, after application. However, these emulsions leave a surface film and give the feeling of not penetrating into the skin. However, the feeling of penetration is an important attribute directly linked to the effectiveness perceived by the consumer. This feeling that the product does not penetrate and/or does not penetrate sufficiently and/or does not penetrate sufficiently quickly compromises the perception of deep effectiveness (in particular for anti-aging creams where the penetration of the formula must be felt in order to convey optimal effectiveness).

To overcome these drawbacks, it has been proposed to prepare water-in-oil emulsions with a high water content. Thus, patent US 7 514 496 describes the use of an alkylpolyglycoside, Fluidanov 20X, as an emulsifier for stabilizing water-in-oil emulsions which contain a high amount of water.

However, the use of water-in-oil emulsions, especially for formulating care creams, remains limited since, firstly, they are generally difficult to implement and, secondly, their sensory nature is often less appreciated by consumers.

The implementation difficulties are essentially difficulties in obtaining stable compositions especially on account of interactions, or even incompatibilities, between certain starting materials and most particularly with certain cosmetic active agents.

As regards the sensory nature of water-in-oil emulsions, it is often reflected by a greasy, shiny or even tacky finish which may be offputting.

Thus, there is still a need to provide novel formulations of water-in-oil emulsion type which have good cosmetic and sensory properties, and in particular which make it possible to obtain good mattness on the skin, the matte effect exhibiting good persistence over time.

The applicant has noted, surprisingly, that cosmetic compositions in the form of a water-in-oil emulsion comprising the combination of silica aerogel particles with a suitably selected alkylpolyglycoside and a fatty alcohol of which the fatty chain is different than that of the alkylpolyglycoside constitute compositions which have good cosmetic and sensory properties, and in particular compositions which are fresh and soft on application, which are non-greasy, non-tacky and non-shiny during and after application, and which provide the skin with moisturization and persistent mattness.

Thus, a subject of the present invention is a composition in the form of an water-in-oil emulsion comprising:

- hydrophobic silica aerogel particles;
- at least one alkylpolyglycoside of formula (I) below:

$$R(O)(G)_x \qquad (I)$$

in which:

- the radical R is a linear or branched C_{14}-C_{24} alkyl radical;

G represents a reduced sugar comprising from 5 to 6 carbon atoms; and

x denotes a value ranging from 1 to 10, preferably 1 to 4; and

- at least one fatty alcohol of which the fatty chain is different than that of the alkylpolyglycoside.

The composition in accordance with the invention makes it possible to obtain a cosmetic emulsion which has good stability, and also good cosmetic and sensory properties, in particular which is fresh and soft on application, which is non-greasy, non-shiny and non-tacky during and after application, and which provides moisturization and affords a long-lasting immediate and effective mattness effect.

The emulsion obtained according to the invention has good stability over time, even at a temperature above ambient temperature (for example 45°C).

The term “stable emulsion” is generally intended to mean an emulsion which exhibits little or even no macroscopic and microscopic change (in color, in odor, in viscosity, nor any variation in pH) after storage and/or temperature change, in particular after 24 hours at a temperature of between 4°C and 50°C.

A subject of the invention is also a cosmetic treatment process for caring for and/or making up keratin materials, which consists in applying to the keratin materials a composition as defined above.

A subject of the invention is also the use of said composition in the cosmetics or dermatology field, and in particular for caring for, protecting and/or making up keratin materials, such as bodily or facial skin, or the hair.

The composition according to the invention is intended for topical application and thus comprises a physiologically acceptable medium. The term “physiologically acceptable medium” is intended to mean here a medium that is compatible with keratin materials.

In the context of the present invention, the term “keratin material” is in particular intended to mean the skin, the scalp, keratin fibers such as the eyelashes, the eyebrows, head hair, bodily hair, the nails, and mucous membranes such as the lips, and more particularly the skin (body, face, area around the eyes, eyelids).

In the following text, the expression "*at least one*" is equivalent to "one or more" and, unless otherwise indicated, the limits of a range of values are included in that range.

Hydrophobic silica aerogels

Silica aerogels are porous materials obtained by replacing (by drying) the liquid component of a silica gel with air.

They are generally synthesized via a sol-gel process in a liquid medium and then dried, usually by extraction with a supercritical fluid, the one most commonly used being supercritical CO_2. This type of drying makes it possible to avoid shrinkage of the pores and of the material. The sol-gel process and the various drying operations are described in detail in Brinker C.J. and Scherer G.W., *Sol-Gel Science*, New York: Academic Press, 1990.

The hydrophobic silica aerogel particles used in the present invention have a specific surface area per unit mass (S_M) ranging from 500 to 1500 m^2/g, preferably from 600 to 1200 m^2/g and better still from 600 to 800 m^2/g, and a size expressed as the volume mean diameter (D[0.5]) ranging from 1 to 1500 µm, better still from 1 to 1000 µm, preferably from 1 to 100 µm, in particular from 1 to 30 µm, more preferably from 5 to 25 µm, better still from 5 to 20 µm and even better still from 5 to 15 µm.

According to one embodiment, the hydrophobic silica aerogel particles used in the present invention have a size expressed as volume mean diameter (D[0.5]) ranging from 1 to 30 µm, preferably from 5 to 25 µm, better still from 5 to 20 µm and even better still from 5 to 15 µm.

The specific surface area per unit mass may be determined by the nitrogen absorption method, known as the BET (Brunauer-Emmett-Teller) method, described in The Journal of the American Chemical Society, vol. 60, page 309, February 1938 and corresponding to international standard ISO 5794/1 (annex D). The BET specific surface area corresponds to the total specific surface area of the particles under consideration.

The sizes of the silica aerogel particles can be measured by static light scattering using a commercial particle size analyser of MasterSizer 2000 type from Malvern. The data are processed on the basis of the Mie scattering theory. This theory, which is exact for isotropic particles, makes it possible to determine, in the case of non-spherical particles, an "effective" particle diameter. This theory is in particular described in the publication by Van de Hulst, H.C., Light Scattering by Small Particles, Chapters 9 and 10, Wiley, New York, 1957.

According to an advantageous embodiment, the hydrophobic silica aerogel particles used in the present invention have a specific surface area per unit mass (S_M) ranging from 600 to 800 m^2/g and a size expressed as the volume mean diameter (D[0.5]) ranging from 5 to 20 µm and even better still from 5 to 15 µm.

The silica aerogel particles used in the present invention may advantageously have a tapped density ρ ranging from 0.04 g/cm^3 to 0.10 g/cm^3 and preferably from 0.05 g/cm^3 to 0.08 g/cm^3.

In the context of the present invention, this density may be assessed according to the following protocol, known as the tapped density protocol:

40 g of powder are poured into a graduated measuring cylinder; the measuring cylinder is then placed on the Stav 2003 device from Stampf Volumeter; the measuring cylinder is subsequently subjected to a series of 2500 tapping actions (this operation is repeated until the difference in volume between two consecutive tests is less than 2%) and then the final volume Vf of tapped powder is measured directly on the measuring cylinder. The tapped density is determined by the ratio m/Vf, in this case 40/Vf (Vf being expressed in cm^3 and m in g).

According to one embodiment, the hydrophobic silica aerogel particles used in the present invention have a specific surface area per unit volume S_V ranging from 5 to 60 m^2/cm^3, preferably from 10 to 50 m^2/cm^3 and better still from 15 to 40 m^2/cm^3.

The specific surface area per unit volume is given by the relationship: $S_V = S_M \times \rho$, where ρ is the tapped density, expressed in g/cm^3, and S_M is the specific surface area per unit mass, expressed in m^2/g, as defined above.

Preferably, the hydrophobic silica aerogel particles according to the invention have an oil absorption capacity, measured at the wet point, ranging from 5 to 18 ml/g, preferably from 6 to 15 ml/g and better still from 8 to 12 ml/g.

The absorption capacity, measured at the wet point and denoted Wp, corresponds to the amount of oil which it is necessary to add to 100 g of particles in order to obtain a homogeneous paste.

It is measured according to the "wet point" method or the method for determining the oil uptake of a powder described in standard NF T 30-022. It corresponds to the amount of oil adsorbed onto the available surface of the powder and/or absorbed by the powder by measurement of the wet point, described below:

An amount m = 2 g of powder is placed on a glass plate and then the oil (isononyl isononanoate) is added dropwise. After addition of 4 to 5 drops of oil to the powder, mixing is performed using a spatula, and addition of oil is continued until conglomerates of oil and powder have formed. From this point, the oil is added at the rate of one drop at a time and the mixture is subsequently triturated with the spatula. The addition of oil is stopped when a firm and smooth paste is obtained. This paste must be able to be spread over the glass plate without cracks or the formation of lumps. The volume Vs (expressed in ml) of oil used is then noted.

The oil uptake corresponds to the ratio Vs/m.

The aerogels used according to the present invention are hydrophobic silica aerogels, preferably aerogels of silyl silica (INCI name: silica silylate).

The term "hydrophobic silica" is intended to mean any silica of which the surface is treated with silylating agents, for example with halogenated silanes, such as alkylchlorosilanes, siloxanes, in particular dimethylsiloxanes, such as hexamethyldisiloxane, or silazanes, so as to functionalize the OH groups with silyl groups Si-Rn, for example trimethylsilyl groups.

As regards the preparation of hydrophobic silica aerogel particles surface-modified by silylation, reference may be made to document US 7 470 725.

Use will be made in particular of aerogel particles of hydrophobic silica surface-modified with trimethylsilyl (trimethylsiloxylated silica) groups.

As hydrophobic silica aerogels that may be used in the invention, examples that may be mentioned include the aerogel sold under the name VM-2260 (INCI name: Silica silylate), by the company Dow Corning, the particles of which have an average size of about 1000 microns and a specific surface area per unit mass ranging from 600 to 800 m^2/g.

Mention may also be made of the aerogels sold by the company Cabot under the references Aerogel TLD 201, Aerogel OGD 201, Aerogel TLD 203, Enova® Aerogel MT 1100 and Enova Aerogel MT 1200.

Use will be made more particularly of the aerogel sold under the name VM-2270 (INCI name: Silica silylate), by the company Dow Corning, the particles of which have an average size ranging from 5-15 microns and a specific surface area per unit mass ranging from 600 to 800 m^2/g.

The hydrophobic silica aerogel particles may be present in the composition according to the invention in an active material content ranging from 0.1% to 15% by weight, preferably from 1% to 10% by weight, better still from 1% to 5% by weight and more preferably from 1% to 3% by weight relative to the total weight of the composition.

Alkylpolyglycoside

The composition in accordance with the invention comprises at least one surfactant of alkylpolyglycoside type of formula (I) below:

$$R(O)(G)_x \qquad (I)$$

in which:

- the radical R is a linear or branched C_{14}-C_{24} alkyl radical;

G represents a reduced sugar comprising from 5 to 6 carbon atoms; and

x denotes a value ranging from 1 to 10 and preferably 1 to 4.

For the purposes of the present invention, the term "alkylpolyglycoside" is intended to mean an alkylmonosaccharide (degree of polymerization 1) or an alkylpolysaccharide (degree of polymerization greater than 1). In the context of the present invention, the alkylpolyglycosides may be used alone or in the form of mixtures of several alkylpolyglycosides.

In a preferred embodiment, G may be chosen from glucose, dextrose, saccharose, fructose, galactose, maltose, maltotriose, lactose, cellobiose, mannose, ribose, dextran, talose, allose, xylose, levoglucan, cellulose or starch, and more preferentially denotes glucose, fructose, xylose or galactose.

It should also be noted that each unit of the polysaccharide part of the alkylpolyglycoside may be in α or β isomer form, in L or D form, and the configuration of the saccharide residue may be of furanoside or pyranoside type.

It is, of course, possible to use mixtures of alkylpolysaccharides, which may differ from one another in the nature of the borne alkyl unit and/or the nature of the bearing polysaccharide chain.

The radical R may be saturated or unsaturated.

According to one particular embodiment, the radical R is a branched C_{14}-C_{24} alkyl radical.

According to one preferred embodiment, the radical R is a saturated branched alkyl radical.

According to one preferred embodiment, the surfactant(s) of alkylpolyglucoside type are of formula (II) below:

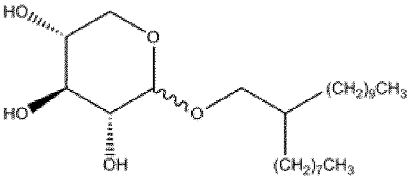
$$R'\text{-}O\text{-}G \qquad (II)$$

in which:

the radical R' is a branched, preferably saturated, alkyl radical comprising from 14 to 24 carbon atoms, preferably from 18 to 22 carbon atoms, and G denotes a reduced sugar comprising from 5 to 6 carbon atoms, preferably a xylose residue.

In a preferred embodiment of the invention, the alkylpolyglycoside is an alkylpolyglucoside, in which R more particularly represents an oleyl radical (unsaturated C_{18} radical) or isostearyl radical (saturated C_{18} radical), G denotes glucose, x is a value ranging from 1 to 2, especially isostearyl glucoside or oleyl glucoside, and mixtures thereof.

In another preferred embodiment of the invention, the alkylpolyglycoside is an alkylpolyxyloside, in which R more particularly represents an octyldodecyl radical, G denotes xylose and x is equal to 1, of formula:



Advantageously, the surfactant of alkylpolyglycoside type is present in a content ranging from 0.02% to 10% by weight, particularly from 1% to 5% by weight and more particularly of about 0.5% by weight relative to the total weight of the composition.

According to a particular mode of the invention, the alkylpolyglycoside may be used as a mixture with a coemulsifier, more especially with at least one fatty alcohol, and especially a fatty alcohol comprising from 14 to 24 carbon atoms and bearing the same fatty chain as that of the alkylpolyglycoside.

In one particular embodiment of the invention, the mixture formed by the surfactant of alkylpolyglycoside type and the fatty alcohol is present in a content ranging from 0.02% to 10% by weight, particularly from 1% to 5% by weight and more particularly of about 2% by weight relative to the total weight of the composition.

In one particular embodiment, when the alkylpolyglycoside is isostearyl glucoside, it is advantageously mixed with isostearyl alcohol. Such a mixture is sold especially under the name Montanov WO18 by the company SEPPIC.

In another embodiment, when the alkylpolyglycoside is oleyl glucoside, it is advantageously mixed with oleyl alcohol, optionally in the form of a self-emulsifying composition, as described, for example, in WO 92/06778.

In another embodiment of the invention, when the alkylpolyglycoside is octyldodecyl xyloside, it is advantageously mixed with octyldodecanol.

Thus, advantageously, the alkylpolyglycoside is octyl dodecyl xyloside and the fatty alcohol is octyldodecanol.

Such a mixture is sold especially under the name Fluidanov 20X by the company SEPPIC (constituted of about 20% to 30% of octyldodecyl xyloside and of about 70% to 80% of octyldodecanol).

In such an embodiment of the invention, the amount of octyldodecyl xyloside used in the composition according to the invention ranges from 20% to 30% by weight relative to the total weight of the mixture of octyldodecyl xyloside and of octyldodecanol.

Similarly, the amount of octyldodecanol used in the composition according to the invention ranges from 70% to 80% by weight relative to the total weight of the mixture of octyldodecyl xyloside and of octyldodecanol.

Advantageously, the mixture of octyldodecyl xyloside and of octyldodecanol is present in a content ranging from 0.02% to 10% by weight, particularly from 1% to 5% by weight and more particularly of about 2% by weight relative to the total weight of the composition.

According to a particular embodiment, the alkylpolyglycoside may constitute the main surfactant system of the composition.

The term "main surfactant system" is intended to mean a system which, in its absence, does not lead to the formation of a stable composition.

The term "main" is intended to mean that any additional surfactant, other than the alkylpolyglycoside(s) according to the invention, or the mixture of the alkylpolyglycoside according to the invention with a coemulsifier, more especially with at least one fatty alcohol, and especially a fatty alcohol bearing the same fatty chain as that of the alkylpolyglycoside, is present in a content not exceeding 1% and preferably not exceeding 0.5%.

Additional emulsifying surfactant

In one particular embodiment, the composition according to the invention comprises at least one additional emulsifying surfactant, preferably chosen from the group formed by polyhydroxystearate esters, polyglycol esters and polyol ethers.

In one particular embodiment, the additional emulsifying surfactant used is the polyethylene glycol polyhydroxystearate sold by the company Croda under the name Arlacel P135 or the product of which the INCI name is PEG-30 Dipolyhydroxystearate sold by the company Croda under the name Cithrol DPHS-SO (MV).

In one preferred embodiment of the invention, the weight ratio between the surfactant of alkylpolyglycoside type according to the invention and the additional emulsifying surfactant is about 4/1.

In another preferred embodiment of the invention, the weight ratio between the mixture of the alkylpolyglycoside according to the invention with a fatty alcohol, and especially a fatty alcohol bearing the same fatty chain as that of the alkylpolyglycoside, preferably the octyldodecyl xyloside/octyldodecanol mixture, and the additional emulsifying surfactant is about 4/1.

Fatty alcohols

The composition in accordance with the invention comprises at least one fatty alcohol of which the fatty chain is different than that of the alkylpolyglycoside.

For the purposes of the present invention, the term “fatty alcohol” is intended to mean a linear or branched, preferably linear, alkyl chain comprising at least 6 carbon atoms, preferably at least 8 carbon atoms, which terminates at one of its ends with a hydroxyl group.

According to one particular embodiment, the fatty alcohol(s) present in the composition are chosen from fatty monoalcohols, that is to say fatty alcohols comprising a single hydroxyl group.

According to one particular embodiment, the fatty alcohol(s) comprise between 8 and 40 carbon atoms, preferably between 10 and 30, and even more preferentially between 16 and 24 carbon atoms.

According to one particular embodiment of the invention, the fatty alcohol(s) which may be used are chosen from cetyl alcohol, stearyl alcohol, cetylstearyl alcohol (cetyl alcohol / stearyl alcohol mixture, 50/50 by weight) and behenyl alcohol. It is preferably behenyl alcohol.

By way of examples, mention may be made of the stearyl alcohol sold under the name Lanette 18 by the company BASF, the cetyl alcohol sold under the name Lanette 16 by the company BASF, and the behenyl alcohol sold under the name Lanette 22 by the company BASF.

According to one particular embodiment of the invention, the fatty alcohol(s) are liquid or solid at ambient temperature. They are preferably solid.

For the purposes of the present invention, the term "liquid" is intended to denote a composition that is capable of flowing under its own weight, at ambient temperature (at 20°C) and at atmospheric pressure (760 mmHg), as opposed to a “solid” composition.

The fatty alcohol(s) may be present in the composition in accordance with the invention in an active material (AM) content ranging from 2% to 10% by weight relative to the total weight of the composition.

According to a particular embodiment of the invention, the fatty alcohol(s) are present in the composition in an active material content of between 2% and 6% by weight, preferably between 3% and 5% by weight, better still between 3.5% and 4.5% by weight, in particular equal to 4% by weight of the total weight of the composition.

Water-in-oil emulsion or inverse emulsion

The composition according to the invention is a water-in-oil emulsion, referred to as an inverse emulsion.

An inverse emulsion is generally constituted of an oily liquid phase, in this case the continuous phase, and of an aqueous liquid phase, in this case the dispersed phase.

It is a dispersion of droplets of the aqueous phase in the oily phase.

Oily phase

For the purposes of the invention, an oily phase comprises at least one oil.
The term “*oil*” is intended to mean any fatty substance that is in liquid form at ambient temperature and atmospheric pressure.
An oily phase that is suitable for preparing the cosmetic compositions according to the invention may comprise hydrocarbon-based oils, silicone oils, fluoro oils or non-fluoro oils, or mixtures thereof.
The oils may be volatile or nonvolatile.
They may be of animal, plant, mineral or synthetic origin.
For the purposes of the present invention, the term "nonvolatile oil" is intended to mean an oil with a vapor pressure of less than 0.13 Pa.
For the purposes of the present invention, the term "silicone oil" is intended to mean an oil comprising at least one silicon atom, and in particular at least one Si-O group.
The term "*fluoro oil*" is intended to mean an oil comprising at least one fluorine atom.
The term "*hydrocarbon-based oil*" is intended to mean an oil mainly containing hydrogen and carbon atoms.
The oils may optionally comprise oxygen, nitrogen, sulfur and/or phosphorus atoms, for example in the form of hydroxyl or acid radicals.
For the purposes of the invention, the term "*volatile oil*" is intended to mean any oil that is capable of evaporating on contact with the skin in less than one hour, at ambient temperature and atmospheric pressure. The volatile oil is a volatile cosmetic compound, which is liquid at ambient temperature, especially having a non-zero vapor pressure, at ambient temperature and atmospheric pressure, especially having a vapor pressure ranging from 0.13 Pa to 40 000 Pa (10^{-3} to 300 mmHg), in particular ranging from 1.3 Pa to 13 000 Pa (0.01 to 100 mmHg) and more particularly ranging from 1.3 Pa to 1300 Pa (0.01 to 10 mmHg).

Volatile oils

The volatile oils may be hydrocarbon-based oils or silicone oils.
Among the volatile hydrocarbon-based oils containing from 8 to 16 carbon atoms, mention may be made especially of branched C_8-C_{16} alkanes, for instance C_8-C_{16} isoalkanes (also known as isoparaffins), isododecane, isodecane, isohexadecane and, for example, the oils sold under the trade names Isopar or Permethyl, branched C_8-C_{16} esters, for instance isohexyl neopentanoate, and mixtures thereof. Preferably, the volatile hydrocarbon-based oil is chosen from volatile hydrocarbon-based oils containing from 8 to 16 carbon atoms,

and mixtures thereof, in particular from isododecane, isodecane and isohexadecane, and is especially isohexadecane.

Mention may also be made of volatile linear alkanes comprising from 8 to 16 carbon atoms, in particular from 10 to 15 carbon atoms and more particularly from 11 to 13 carbon atoms, for instance n-dodecane (C_{12}) and n-tetradecane (C_{14}) sold by Sasol under the respective references Parafol 12-97 and Parafol 14-97, and also mixtures thereof, the undecane-tridecane mixture, mixtures of n-undecane (C_{11}) and of n-tridecane (C_{13}) obtained in Examples 1 and 2 of patent application WO 2008/155 059 from the company Cognis, and mixtures thereof.

Volatile silicone oils that may be mentioned include linear volatile silicone oils such as hexamethyldisiloxane, octamethyltrisiloxane, decamethyltetrasiloxane, tetradecamethylhexasiloxane, hexadecamethylheptasiloxane and dodecamethylpentasiloxane.

Volatile cyclic silicone oils that may be mentioned include hexamethylcyclotrisiloxane, octamethylcyclotetrasiloxane, decamethylcyclopentasiloxane and dodecamethylcyclohexasiloxane.

Nonvolatile oils

The composition according to the invention may comprise a nonvolatile oil.

It falls within the competence of those skilled in the art to select the nature and amount of nonvolatile oil(s) that may be introduced into the composition without impairing the properties thereof.

When they are present, the nonvolatile oils may be chosen especially from nonvolatile hydrocarbon-based oils, fluoro oils and/or silicone oils.

Nonvolatile hydrocarbon-based oils that may especially be mentioned include:

- hydrocarbon-based oils of animal origin,
- hydrocarbon-based oils of plant origin, synthetic ethers containing from 10 to 40 carbon atoms, such as dicaprylyl ether,
- synthetic esters, such as the oils of formula R_1COOR_2, in which R_1 represents a linear or branched fatty acid residue comprising from 1 to 40 carbon atoms and R_2 represents a hydrocarbon-based chain, which is in particular branched, containing from 1 to 40 carbon atoms, on condition that $R_1 + R_2 \geq 10$. The esters may be chosen especially from fatty acid alcohol esters, for instance cetostearyl octanoate, isopropyl alcohol esters such as isopropyl myristate or isopropyl palmitate, ethyl palmitate, 2-ethylhexyl palmitate, isopropyl stearate, octyl stearate, hydroxylated esters, such as isostearyl lactate or octyl hydroxystearate, alkyl or polyalkyl ricinoleates, hexyl laurate, esters of neopentanoic acid,

such as isodecyl neopentanoate or isotridecyl neopentanoate, or esters of isononanoic acid, such as isononyl isononanoate or isotridecyl isononanoate,

- polyol esters and pentaerythritol esters, such as dipentaerythrityl tetrahydroxystearate/tetraisostearate,
- fatty alcohols that are liquid at ambient temperature, with a branched and/or unsaturated carbon-based chain containing from 12 to 26 carbon atoms, for instance 2-octyldodecanol, isostearyl alcohol and oleyl alcohol,
- C_{12}-C_{22} higher fatty acids, such as oleic acid, linoleic acid, linolenic acid, and mixtures thereof,
- nonphenyl silicone oils, for instance caprylyl methicone, and
- phenyl silicone oils, for instance phenyl trimethicones, phenyl dimethicones, phenyltrimethylsiloxydiphenylsiloxanes, diphenyl dimethicones, diphenylmethyldiphenyltrisiloxanes and 2-phenylethyl trimethylsiloxysilicates, dimethicones or phenyl trimethicone with a viscosity of less than or equal to 100 cSt, and trimethylpentaphenyltrisiloxane, and mixtures thereof; and also mixtures of these various oils.

A composition according to the invention may comprise from 1% to 95% by weight, better still from 1.5% to 40% by weight and preferably from 2% to 35% by weight of oil(s) relative to the total weight of said composition.

The composition according to the invention may also comprise at least one fatty compound that is pasty at ambient temperature. For the purposes of the invention, the term "pasty fatty substance" is intended to mean fatty substances with a melting point ranging from 20 to 55°C, preferably 25 to 45°C, and/or a viscosity at 40°C ranging from 0.1 to 40 Pa.s (1 to 400 poises), preferably 0.5 to 25 Pa.s, measured using a Contraves TV or Rheomat 80 viscometer, equipped with a spindle rotating at 60 Hz. Those skilled in the art may select the spindle for measuring the viscosity from the spindles MS-r3 and MS-r4 on the basis of their general knowledge, so as to be able to perform the measurement on the pasty compound tested. Preferably, these fatty substances are hydrocarbon-based compounds, optionally of polymer type; they may also be chosen from silicone compounds; they may also be in the form of a mixture of hydrocarbon-based and/or silicone compounds. In the case of a mixture of different pasty fatty substances, use is preferably made of hydrocarbon-based pasty compounds (mainly containing carbon and hydrogen atoms and optionally ester groups) in major proportion.

Among the pasty compounds that may be used in the composition according to the invention, mention may be made of lanolins and lanolin derivatives, for instance acetylated lanolins, oxypropylenated lanolins or isopropyl lanolate, with a viscosity of from 18 to 21 Pa.s, preferably 19 to 20.5 Pa.s, and/or a melting point of 30 to 55°C, and mixtures thereof.

Esters of fatty acids or of fatty alcohols may also be used, especially those containing from 20 to 65 carbon atoms (melting point of about 20 to 35°C and/or viscosity at 40°C ranging from 0.1 to 40 Pa.s), for instance triisostearyl or cetyl citrate; arachidyl propionate; polyvinyl laurate; cholesterol esters, for instance triglycerides of plant origin such as hydrogenated plant oils, viscous polyesters such as poly(12-hydroxystearic acid), and mixtures thereof.

Mention may also be made of pasty silicone fatty substances such as polydimethylsiloxanes (PDMSs) bearing side chains of the alkyl or alkoxy type containing from 8 to 24 carbon atoms, and having a melting point of 20-55°C, for instance stearyl dimethicones, especially those sold by the company Dow Corning under the trade names DC2503 and DC25514, and mixtures thereof.

The composition according to the invention may also comprise at least one wax at ambient temperature. For the purposes of the present invention, the term “wax” is intended to mean a lipophilic compound, which is solid at ambient temperature (25°C), with a reversible solid/liquid change of state, with a melting point of greater than or equal to 30°C, which may be up to 120°C. By bringing the wax to the liquid state (melting), it is possible to make it miscible with the oils that may be present and to form a microscopically homogeneous mixture, but on returning the temperature of the mixture to ambient temperature, recrystallization of the wax in the oils of the mixture is obtained. The melting point of the wax may be measured using a differential scanning calorimeter (DSC), for example the calorimeter sold under the name DSC 30 by the company Mettler. The waxes may be hydrocarbon-based waxes, fluoro waxes and/or silicone waxes, and may be of plant, mineral, animal and/or synthetic origin. In particular, the waxes have a melting point of greater than 25°C and better still greater than 45°C. As wax that may be used in the composition of the invention, mention may be made of beeswax, carnauba wax or candelilla wax, paraffin, microcrystalline waxes, ceresin or ozokerite; synthetic waxes such as polyethylene waxes or Fischer-Tropsch waxes, silicone waxes such as alkyl or alkoxy dimethicones containing from 16 to 45 carbon atoms.

Aqueous phase

The aqueous phase of the composition according to the invention comprises water and optionally a water-soluble solvent.

In the present invention, the term “*water-soluble solvent*” denotes a compound that is liquid at ambient temperature and water-miscible (miscibility in water of greater than 50% by weight at 25°C and atmospheric pressure).

The water-soluble solvents that may be used in the composition of the invention may also be volatile.

Among the water-soluble solvents that may be used in the composition in accordance with the invention, mention may be made especially of lower monoalcohols containing from 1 to 5 carbon atoms, such as ethanol and isopropanol, C_3 and C_4 ketones and C_2-C_4 aldehydes.

The aqueous phase may be present in the composition in a content ranging from 5% to 95%, better still from 30% to 80% by weight and preferably from 40% to 75% by weight relative to the total weight of said composition.

According to another embodiment variant, the aqueous phase of a composition according to the invention may comprise at least one C_2-C_{32} polyol.

Within the meaning of the present invention, a "*polyol*" should be understood to be any organic molecule comprising at least two free hydroxyl groups.

Preferably, a polyol according to the present invention is present in liquid form at ambient temperature.

A polyol that is suitable for use in the invention may be a compound of linear, branched or cyclic, saturated or unsaturated alkyl type, bearing on the alkyl chain at least two –OH functions, in particular at least three –OH functions and more particularly at least four –OH functions.

The polyols that are advantageously suitable for formulating a composition according to the present invention are those especially containing from 2 to 32 carbon atoms and preferably 3 to 16 carbon atoms.

Advantageously, the polyol may be chosen, for example, from ethylene glycol, pentaerythritol, trimethylolpropane, propylene glycol, dipropylene glycol, 1,3-propanediol, butylene glycol, 1,3-butylene glycol, isoprene glycol, pentylene glycol, hexylene glycol, caprylyl glycol, glycerol, ethylhexyl glycerol, polyglycerols, such as glycerol oligomers, for instance diglycerol, and polyethylene glycols, and mixtures thereof.

According to a preferred embodiment of the invention, said polyol is chosen from ethylene glycol, pentaerythritol, trimethylolpropane, propylene glycol, glycerol, polyglycerols, polyethylene glycols and mixtures thereof.

According to a particular mode, the composition of the invention may comprise at least one glycol.

Said water-soluble solvent(s) are generally present in the composition in an amount of at least 3% by weight and preferably ranging from 10% to 20% by weight relative to the total weight of said composition.

In a known manner, all the compositions of the invention may comprise one or more of the adjuvants that are common in cosmetics and dermatology: hydrophilic or lipophilic gelling agents and/or thickeners; moisturizers; emollients; hydrophilic or lipophilic active agents;

free-radical scavengers; sequestrants; antioxidants; preservatives; basifying or acidifying agents; fragrances; film-forming agents; fillers; and mixtures thereof.

The amounts of these various adjuvants are those conventionally used in the fields under consideration. In particular, the amounts of active agents vary according to the desired aim and are those conventionally used in the fields under consideration, for example from 0.1% to 20% and preferably from 0.5% to 10% by weight relative to the total weight of the composition.

Active agents

Non-limiting examples of active agents that may be mentioned include ascorbic acid and derivatives thereof such as 5,6-di-O-dimethylsilyl ascorbate (sold by the company Exsymol under the reference PRO-AA), the potassium salt of dl-alpha-tocopheryl-2l-ascorbyl phosphate (sold by the company Senju Pharmaceutical under the reference Sepivital EPC), magnesium ascorbyl phosphate, sodium ascorbyl phosphate (sold by the company Roche under the reference Stay-C 50); phloroglucinol; enzymes; and mixtures thereof.

According to a preferred embodiment of the invention, use is made, among oxidation-sensitive hydrophilic active agents, of ascorbic acid. The ascorbic acid may be of any nature. Thus, it may be of natural origin in powder form or in the form of orange juice, preferably orange juice concentrate. It may also be of synthetic origin, preferably in powder form.

As other active agents that can be used in the composition of the invention, examples that may be mentioned include moisturizers, such as protein hydrolysates and polyols, for instance glycerol, glycols, for instance polyethylene glycols; natural extracts; anti-inflammatory agents; oligomeric proanthocyanidins; vitamins such as vitamin A (retinol), vitamin E (tocopherol), vitamin B5 (panthenol), vitamin B3 (niacinamide), derivatives of these vitamins (in particular esters) and mixtures thereof; urea; caffeine; depigmenting agents such as kojic acid, hydroquinone and caffeic acid; salicylic acid and derivatives thereof; alpha-hydroxy acids, such as lactic acid and glycolic acid and derivatives thereof; retinoids, such as carotenoids and vitamin A derivatives; hydrocortisone; melatonin; algal, fungal, plant, yeast or bacterial extracts; steroids; antibacterial active agents, such as 2,4,4'-trichloro-2'-hydroxydiphenyl ether (or triclosan), 3,4,4'-trichlorocarbanilide (or triclocarban) and the acids indicated above, and in particular salicylic acid and derivatives thereof; mattifying agents, for instance fibers; tensioning agents; UV-screening agents, in particular organic UV-screening agents; and mixtures thereof.

Needless to say, those skilled in the art will take care to select the optional adjuvant(s) 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 envisioned addition.

The composition according to the invention is in the form of a thick cream. It can have a viscosity at ambient temperature (25°C) which varies within a broad range, for example a viscosity ranging from 47 to 83 poises, and preferably between 57 and 71 poises. The viscosity is measured with a Rheomat 180 at 25°C, with spindles suitable for the viscosity, in particular spindles 3 or 4.

The examples that follow will allow the invention to be understood more clearly, without, however, being limiting in nature. The amounts indicated are weight percentages of starting material, unless otherwise mentioned. The names of the compounds are given as the INCI names.

EXAMPLES

The immediate shininess after drying and the resistance to sebum and to sweat of the compositions exemplified are evaluated by means of a test developed by L'Oreal referred to as "*in vitro* mattness test".

The mattness obtained with the compositions tested was measured using a contrast card (Prufkarte 24/5-250 cm² type) sold by the company Erichsen. The composition studied was spread in an amount of 2 mg/cm² by means of a mechanical film drawer so as to obtain a film 100 microns thick. The cards are stored for 24 h at 37°C under a controlled atmosphere, between 15% and 25% humidity.

Three successive procedures, 6 minutes apart, consisting in spraying a composition mimicking sebum and sweat (20% oleic acid + 80% Vichy water + 1% Oleth-10) were carried out. The amount deposited is approximately 0.3 g per spraying procedure. For each of the three spraying procedures, a measurement of the reflection was carried out at T0 by means of a gonioreflectometer (UBT0), then, after waiting for a period of 6 minutes at ambient temperature, a further measurement was carried out (UBT6min(1) 6 minutes after the first spraying procedure, UBT6min(2) 6 minutes after the second spraying procedure and UBT6min(3) 6 minutes after the third spraying procedure). The result obtained is the ratio R (shininess unit) between the specular reflection and the diffuse reflection (shininess unit). The value of R is proportionally smaller the greater the mattifying effect.

Example 1

The following compositions were prepared.

Phase	Starting materials	Comp A (invention)	Comp B (comparative)	Comp C (comparative)
C	SILICA SILYLATE (AEROGEL VM2270 from DOW CORNING)	1.5	1.5	-
B	ISOSTEARYL NEOPENTANOATE	2	2	2
B	HYDROGENATED POLYISOBUTENE (PARLEAM from NOF CORPORATION)	2	2	2

A	SODIUM SALT OF COPOLYMER ACRYLIC ACID/ACRYLAMIDO-2-METHYLPROPANESULFONIC IN INVERSE EMULSION AT 45% IN ISOHEXADECANE/WATER (SIMULGEL EG from SEPPIC)	1.9	1.9	1.9
D	DENAT. ALCOHOL	7	7	7
A	WATER	71.4	68.4	72.9
A	GLYCEROL	7	14	7
A	CAPRYLYL GLYCOL	0.7	0.7	0.7
B	COPOLYMER OF POLYETHYLENE GLYCOL (30 EO) AND 12-HYDROXYSTEARIC ACID (PEG 1500 DI-POLYHYDROXYSTEARATE: 30 EO) (CITHROL DPHS-SO-(MV) from CRODA)	0.5	0.5	0.5
B	BEHENYL ALCOHOL	4	-	4
B	MIXTURE OF OCTYLDODECANOYL XYLOSIDE AND OCTYLDODECANOL (FLUIDANOV 20 X from SEPPIC)	2	2	2

Preparation method

The aqueous phase A is prepared at 75°C, in a beaker, with mechanical stirring (200 rpm). The fatty phase B is then prepared by mixing the alkylpolyglycoside, the organic oil and the fatty alcohol. This phase is melted in a water bath at 75°C for 30 minutes.

The stirring of the aqueous phase A is then stopped, the fatty phase B is added and the stirring is recommenced at 200 rpm for 5 minutes, then at 1000 rpm for 20 minutes.

The mixture is then left to cool in an ice bath for 30 minutes.

Still with stirring, the phase C (silica aerogel) then the phase D (ethyl alcohol) are added, then the stirring is maintained for a further 5 minutes

Results

	Composition A	Composition B	Composition C

	(invention)	(comparative)	(comparative)
UBT0	2.6	4.4	4.5
UBT6min(1)	2.6	5.1	6.7
UBT6min(2)	2.7	6.1	10.3
UBT6min(3)	3.0	8.4	14.0

The composition A according to the invention comprising the combination of Fluidanov + 4% linear fatty alcohol + silica aerogel makes it possible to obtain very good mattness and resistance of this mattness to sebum and to sweat (15% loss of mattness).

The comparative composition B comprising the combination of Fluidanov + silica aerogel produces good mattness, but it does not make it possible to obtain persistence of this mattness (90% loss of mattness).

The comparative composition C comprising the combination of Fluidanov + 4% linear fatty alcohol produces good mattness, but it does not make it possible to obtain persistence of this mattness (211% loss of mattness).

These results demonstrate the fact that the composition according to the invention makes it possible to obtain a reduced shininess compared with that obtained for a prior art composition. Furthermore, the performance level in terms of mattness of the composition in accordance with the invention exhibits better staying power over time, in particular better resistance to sebum and to sweat

Example 2

The following compositions were prepared.

Phase	Starting materials	Comp A (invention)	Comp D (comparative)
C	SILICA SILYLATE (AEROGEL VM2270 from DOW CORNING)	1.5	1.5
B	ISOSTEARYL NEOPENTANOATE	2	2
B	HYDROGENATED POLYISOBUTENE (PARLEAM from NOF CORPORATION)	2	2
A	SODIUM SALT OF COPOLYMER ACRYLIC ACID/ACRYLAMIDO-2-METHYLPROPANESULFONIC IN INVERSE EMULSION AT 45% IN ISOHEXADECANE/WATER	1.9	1.9

	(SIMULGEL EG from SEPPIC)		
D	DENAT. ALCOHOL	7	7
A	WATER	71.4	71.4
A	GLYCEROL	7	7
A	CAPRYLYL GLYCOL	0.7	0.7
B	COPOLYMER OF POLYETHYLENE GLYCOL (30 EO) AND 12-HYDROXYSTEARIC ACID (PEG 1500 DI-POLYHYDROXYSTEARATE: 30 EO) (CITHROL DPHS-SO-(MV) from CRODA)	0.5	0.5
B	BEHENYL ALCOHOL	4	-
B	OCTYLDODECANOL	-	4
B	MIXTURE OF OCTYLDODECANOYL XYLOSIDE AND OCTYLDODECANOL (FLUIDANOV 20 X from SEPPIC)	2	2

Preparation method

The aqueous phase A is prepared at 75°C, in a beaker, with mechanical stirring (200 rpm). The fatty phase B is then prepared by mixing the alkylpolyglycoside, the organic oil and the fatty alcohol. This phase is melted in a water bath at 75°C for 30 minutes.

The stirring of the aqueous phase A is then stopped, the fatty phase B is added and the stirring is recommenced at 200 rpm for 5 minutes, then at 1000 rpm for 20 minutes.

The mixture is then left to cool in an ice bath for 30 minutes.

Still with stirring, the phase C (silica aerogel) then the phase D (ethyl alcohol) are added, then the stirring is maintained for a further 5 minutes

Results

	Composition A (invention)	Composition D (comparative)
UBT0	2.6	3.0
UBT6min(1)	2.6	4.6
UBT6min(2)	2.7	8.6
UBT6min(3)	3.0	23.2

The composition A according to the invention comprising the combination of Fluidanonv + fatty alcohol of which the fatty chain is different than that of the 4% alkylpolyglycoside +

silica aerogel makes it possible to obtain very good mattness and resistance of this mattness to sebum and to sweat (15% loss of mattness).

The comparative composition D comprising the combination of Fluidanov + fatty alcohol of which the fatty chain is the same as that of the 4% akylpolyglyoside +silica aerogel produces good mattness, but it does not make it possible to obtain persistence of this mattness (673% loss of mattness).

These results demonstrate the fact that the composition according to the invention makes it possible to obtain a reduced shininess compared with that obtained for a prior art composition. Furthermore, the performance level in terms of mattness of the composition in accordance with the invention exhibits better staying power over time, in particular better resistance to sebum and to sweat.

Example 3

The following compositions were prepared.

Phase	Starting materials	Comp A (invention)	Comp E (comparative)
C	SILICA SILYLATE (AEROGEL VM2270 from DOW CORNING)	1.5	-
C	AMORPHOUS SILICA MICROSPHERES (SUNSPHERE H51 from AGC SI-TECH)	-	1.5
B	ISOSTEARYL NEOPENTANOATE	2	2
B	HYDROGENATED POLYISOBUTENE (PARLEAM from NOF CORPORATION)	2	2
A	SODIUM SALT OF COPOLYMER ACRYLIC ACID/ACRYLAMIDO-2-METHYLPROPANESULFONIC IN INVERSE EMULSION AT 45% IN ISOHEXADECANE/WATER (SIMULGEL EG from SEPPIC)	1.9	1.9
D	DENAT.ALCOHOL	7	7
A	WATER	71.4	71.4
A	GLYCEROL	7	7
A	CAPRYLYL GLYCOL	0.7	0.7

B	COPOLYMER OF POLYETHYLENE GLYCOL (30 EO) AND 12-HYDROXYSTEARIC ACID (PEG 1500 DI-POLYHYDROXYSTEARATE: 30 EO) (CITHROL DPHS-SO-(MV) from CRODA)	0.5	0.5
B	BEHENYL ALCOHOL	4	4
B	MIXTURE OF OCTYLDODECANOYL XYLOSIDE AND OCTYLDODECANOL (FLUIDANOV 20 X from SEPPIC)	2	2

Preparation method

The aqueous phase A is prepared at 75°C, in a beaker, with mechanical stirring (200 rpm). The fatty phase B is then prepared by mixing the alkylpolyglycoside, the organic oil and the fatty alcohol. This phase is melted in a water bath at 75°C for 30 minutes.

The stirring of the aqueous phase A is then stopped, the fatty phase B is added and the stirring is recommenced at 200 rpm for 5 minutes, then at 1000 rpm for 20 minutes.

The mixture is then left to cool in an ice bath for 30 minutes.

Still with stirring, the phase C (silica aerogel or amorphous silica) then the phase D (ethyl alcohol) are added, then the stirring is maintained for a further 5 minutes

Results

	Comp A (invention)	Comp E (comparative)
UBT0	2.6	9.6
UBT6min(1)	2.6	16.8
UBT6min(2)	2.7	21.2
UBT6min(3)	3.0	23.3

The composition A according to the invention comprising the combination of Fluidanov + 4% linear fatty alcohol + silica aerogel makes it possible to obtain very good mattness and resistance of this mattness to sebum and to sweat (15% loss of mattness).

The comparative composition E comprising the combination of Fluidanov + 4% linear fatty alcohol + amorphous silica microspheres produces less mattness and it does not make it possible to obtain persistence of this mattness (142% loss of mattness).

These results demonstrate the fact that the composition according to the invention makes it possible to obtain a reduced shininess compared with that obtained for a prior art composition. Furthermore, the performance level in terms of mattness of the composition in accordance with the invention exhibits better staying power over time, in particular better resistance to sebum and to sweat

CLAIMS

1. A composition in the form of an water-in-oil emulsion comprising:
- hydrophobic silica aerogel particles;
- at least one alkylpolyglycoside of formula (I) below:

$$R(O)(G)_x \qquad (I)$$

in which:
- the radical R is a linear or branched C_{14}-C_{24} alkyl radical;

G represents a reduced sugar comprising from 5 to 6 carbon atoms; and

x denotes a value ranging from 1 to 10, preferably 1 to 4; and
- at least one fatty alcohol of which the fatty chain is different than that of the alkylpolyglycoside.

2. The composition as claimed in claim 1, wherein the hydrophobic silica aerogel particles have a specific surface area per unit of volume S_V ranging from 5 to 60 m^2/cm^3, preferably from 10 to 50 m^2/cm^3 and better still from 15 to 40 m^2/cm^3 and/or an oil absorption capacity, measured at the wet point, ranging from 5 to 18 ml/g of particles, preferably from 6 to 15 ml/g and better still from 8 to 12 ml/g.

3. The composition as claimed in either one of claims 1 and 2, wherein the hydrophobic silica aerogel particles are trimethylsiloxylated silica particles.

4. The composition as claimed in any one of claims 1 to 3, wherein the silica aerogel particles are present in an active material content ranging from 0.1% to 15% by weight, preferably from 1% to 10% by weight, better still from 1% to 5% by weight and more preferably from 1% to 3% by weight, relative to the total weight of the composition.

5. The composition as claimed in any one of claims 1 to 4, wherein the alkylpolyglycoside(s) are chosen from the compounds of formula (II) below:

$$R'\text{-}O\text{-}G \qquad (II)$$

in which:

the radical R' is a branched, preferably saturated, alkyl radical comprising from 14 to 24 carbon atoms, preferably from 18 to 22 carbon atoms, and G denotes a reduced sugar comprising from 5 to 6 carbon atoms, preferably a xylose residue.

6. The composition as claimed in any one of claims 1 to 5, also comprising at least one fatty alcohol comprising from 14 to 24 carbon atoms and having the same fatty chain as that of the alkylpolyglycoside.

7. The composition as claimed in claim 6, wherein the alkylpolyglycoside is octyldodecylxyloside and the fatty alcohol is octyldodecanol.

8. The composition as claimed in claim 7, wherein the mixture of octyldodecylxyloside and of octyldodecanol is present in a content ranging from 0.02% to 10% by weight, particularly from 1% to 5% by weight and more particularly of about 2% by weight relative to the total weight of the composition.

9. The composition as claimed in either one of claims 7 and 8, wherein the amount of octyldodecylxyloside ranges from 20% to 30% by weight relative to the total weight of the mixture of octyldodecylxyloside and octyldodecanol.

10. The composition as claimed in any one of claims 7 to 9, wherein the amount of octyldodecanol ranges from 70% to 80% by weight relative to the total weight of the mixture of octyldodecylxyloside and octyldodecanol.

11. The composition as claimed in any one of claims 1 to 10, also comprising at least one additional emulsifying surfactant, preferably chosen from the group formed by polyhydroxystearate esters, polyglycol esters and polyol ethers.

12. The composition as claimed in any one of claims 1 to 11, wherein the fatty alcohol(s) of which the fatty chain is different than that of the alkylpolyglycoside are chosen from linear fatty alcohols comprising between 6 and 40 carbon atoms, preferably between 10 and 40 and even more preferentially between 16 and 24 carbon atoms.

13. The composition as claimed in any one of claims 1 to 12, wherein the fatty alcohol(s) of which the fatty chain is different than that of the alkylpolyglycoside are chosen from cetyl alcohol, stearyl alcohol, cetylstearyl alcohol (cetyl alcohol / stearyl alcohol mixture, 50/50 by weight), and behenyl alcohol, preferably behenyl alcohol.

14. The composition as claimed in any one of claims 1 to 13, wherein the fatty alcohol(s) of which the fatty chain is different than that of the alkylpolyglycoside are solid.

15. The composition as claimed in any one of claims 1 to 14, wherein the fatty alcohol(s) are present in an active material content of between 2% and 6% by weight, preferably between 3% and 5% by weight, better still between 3.5% and 4.5% by weight, in particular equal to 4% by weight of the total weight of the composition.

16. A process for cosmetically treating a keratin material, wherein a composition as defined in any one of claims 1 to 15 is applied to the keratin material.

17. The use of a composition as defined in any one of claims 1 to 15, in the cosmetics field, and in particular for caring for, protecting and/or making up bodily or facial skin, or for hair care.

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2018/084844

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61K8/25 A61K8/34 A61K8/60 A61Q19/00 A61Q19/08
A61K8/06 A61K8/02
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A61K A61Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	FR 3 022 771 A1 (OREAL [FR]) 1 January 2016 (2016-01-01) page 1, lines 20-24 page 7, line 12 - page 9, line 8 example 1 claims 1-3, 11, 12 -----	1-17
Y	WO 97/40814 A1 (PROCTER & GAMBLE [US]) 6 November 1997 (1997-11-06) 1. Exteranl Lipid Phase; pages 12-14 -----	1-17
A	FR 2 986 425 A1 (OREAL [FR]) 9 August 2013 (2013-08-09) examples IV, H page 6, lines 32-33 ----- -/--	1-17

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search 12 February 2019	Date of mailing of the international search report 20/02/2019
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Perrone Dunet, S

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	"Sepiplus 400 Sepiplus 265", ANNOUNCEMENT SEPPIC, XX, XX, 3 June 2005 (2005-06-03), pages 1-42, XP002411698, page 36 -----	1-17
Y	WO 2014/105877 A1 (OREAL [FR]; SHAH ANIL [US]; SIMONNET JEAN-THIERRY [US]; CRISSIEN CARLO) 3 July 2014 (2014-07-03) paragraphs [0003], [0005], [0021], [0037] - [0040] example 12; tables 1, 2, 4 -----	1-17

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2018/084844

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