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(54) Title: LIQUID COSMETIC COMPOSITION COMPRISING A NON-VOLATILE HYDROCARBONATED OIL, A NON-VOLATILE DIMETHICONE OIL AND A DEXTRIN ESTER

(57) Abstract: The present invention relates to liquid compositions for making up and/or caring for the skin and/or the lips, comprising -from 20% to 30% total weight of non-volatile non-phenylated silicone oil(s) have at least a dimethicone part, or mixture thereof, relative to the total weight of the composition, -from 10% to 75% weight of non-volatile hydrocarbonated apolar oil(s), relative to the total weight of the composition, and -from 3,2% to 15% by weight of ester of dextrin, relative to the total weight of the composition,



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## DESCRIPTION

LIQUID COSMETIC COMPOSITION COMPRISING A NON-VOLATILE  
HYDROCARBONATED OIL, A NON-VOLATILE DIMETHICONE OIL AND A DEXTRIN  
ESTER

5

## TECHNICAL FIELD

The present invention relates to a liquid cosmetic composition, more particularly to a cosmetic  
composition for making up and/or caring for the skin and/or the lips, comprising at least a non-volatile  
dimethicone oil, a non-volatile hydrocarbonated apolar oil and a dextrin ester.

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The present invention also relates to the processes using such composition for making up and/or caring  
for the skin and/or the lips, comprising the application to the skin and/or the lips of such cosmetic  
composition.

15

## BACKGROUND ART

In general, when women use a makeup product, especially of lips products such as lipgloss type, they  
wish this product to be easy to apply and to have, after application, comfort and good remanence on  
the skin or the lips, in particular not to be transferred, and in particular no color or a low level of color  
to be transferred.

20

It is known to use liquid compositions comprising non-volatile oils for obtaining a shiny deposit on the  
skin or the lips and gloss remanence.

25

However, the user has a sensation of "tackiness" during the application (difficult to apply) and drying  
on the skin or the lips of products incorporating these non-volatile oils. Furthermore, deposits formed  
from a galenical formulation incorporating a high content of such oils have insufficient color transfer  
resistance level.

30

Therefore, it is sought to further improve the cosmetic properties of the said liquid compositions, in  
particular the applications properties such as the glide and the easiness to apply and to obtain a uniform  
deposit on the lips and/or the skin, and in particular to have a deposit on the skin and / or the lips that  
has a good transfer resistance, and in particular a good color transfer resistance. The deposit should also  
be sparingly tacky or not tacky and have a good shine level.

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## DISCLOSURE OF INVENTION

The inventors have found, unexpectedly, that it turns out to be possible to overcome this drawback  
provided that are used in combination at least from 20 to 30 % of non-volatile non-phenylated silicone  
oil(s) having at least a dimethicone part, from 10 to 75% by weight of total non-volatile  
hydrocarbonated apolar oil(s) and at least a dextrin ester.

40

The aim of the present invention is to overcome these drawbacks and to propose a liquid cosmetic

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composition that is homogenous, stable (for example no separation into two phases, and/or exsudation, and/or sedimentation of the pigments), and capable, on the one hand, of affording good cosmetic properties; in particular applications properties such as glide and easiness to apply, in particular on the lips, good adhesion to the support (skin or lips) and thus good remanence of the deposit of the composition, in particular no or low level transfer of the color of the deposit, and forming a non-tacky or sparingly tacky deposit, having a good level of shine.

Thus, according to one of its aspects, the invention relates to a liquid cosmetic composition for making up and/or caring for the skin and/or the lips, comprising in a physiologically acceptable medium, at least one fatty phase comprising:

- from 20% to 30% by total weight of non-volatile non-phenylated silicone oil(s) having at least a dimethicone part, or mixture thereof, relative to the total weight of the composition,
- from 10% to 75% by total weight of non-volatile hydrocarbonated apolar oil(s), or mixture thereof, relative to the total weight of the composition, and
- from 3.2% to 15% by weight of ester of dextrin, relative to the total weight of the composition.

Such a composition is stable and homogenous, and are preferably makeup compositions, whose deposition on keratin materials, and in particular the lips and/or the skin, is easy to apply (good glide, homogenous deposit) and the deposit has good transfer resistance after application (in particular, no transfer or poor transfer of the color of the deposit, in particular on a cup or a glass while drinking for example). Beside, the deposit obtained with such composition, is sparingly tacky or non-tacky, and has a good level of shine.

The present invention also relates to a cosmetic process for making up and/or caring for the skin and/or the lips, comprising at least the application to the said skin and/or the said lips of a liquid composition comprising, in a physiologically acceptable medium:

- from 20% to 30% total weight of non-volatile non-phenylated silicone oil(s) having at least a dimethicone part, or mixture thereof, relative to the total weight of the composition,
- from 10% to 75% by weight of non-volatile hydrocarbonated apolar oil(s), relative to the total weight of the composition, and
- from 3.2% to 15% by weight of ester of dextrin, relative to the total weight of the composition.

#### BEST MODE FOR CARRYING OUT THE INVENTION

Advantageously, the composition under consideration according to the invention is an oil-in-oil type composition. In the oil in oil type cosmetic composition of the invention, the non-volatile silicone oil and the non-volatile hydrocarbon oil is in a stable oil in oil state before application, without being separated from each other. After application, the non-volatile silicone oil comes up to the surface of the deposit, and this separated non-volatile silicone oil covers an adherent layer of the non-volatile hydrocarbonated oil. Therefore, the resulting composition has good transfer resistance and offers a good level of shine. Rubbing the lips again each other during application further enhance this separation.

Advantageously, the composition under consideration according to the invention is anhydrous.

## PHYSIOLOGICALLY ACCEPTABLE MEDIUM

For the purposes of the present invention, the term "physiologically acceptable medium" is intended to denote a medium that is suitable for the application of a composition to the skin and/or the lips, for instance the oils or organic solvents commonly used in cosmetic compositions.

The physiologically acceptable medium (acceptable tolerance, toxicology and feel) is generally adapted to the nature of the support onto which the composition is to be applied, and also to the form in which the composition is to be conditioned.

As emerges from the examples below, the combination under consideration according to the invention proves to be most particularly effective for affording a composition whose deposit on the skin or the lips that simultaneously has improved gloss and non transfer properties. Beside, the deposit also exhibit remanence over time, in particular of remanence of the colour of the deposit (no embrittlement or fragmentation of the deposit, which remains homogeneous) and satisfactory comfort properties, both on application (especially glidance, breakdown, thickness and uniformity of the deposit formed, and reduction of the tack on drying) and during wearing, namely softness, absence of a tacky sensation or of a sensation of tautness or dryness.

What is more, in the case of lipglosses (liquid lip product), this improvement of non transfer and non tackiness or sparingly tackiness is not obtained at the expense of the shine, which is another property generally sought for a makeup product of this type. Specifically, contrary to all expectation, no matt effect of the cosmetic product containing the combination under consideration according to the invention is noted.

The invention also preferably relates to a liquid composition for making up and/or caring for the skin and/or the lips, comprising, in a physiologically acceptable medium, at least from 20% to 30% of non-volatile non-phenylated silicone oil(s) having at least a dimethicone part, or mixture thereof, from 10% to 75% non-volatile hydrocarbonated apolar oil(s), or mixture thereof, from 3.2% to 15% dextrin fatty acid ester, and at least one colouring agent.

The compositions under consideration according to the invention and used in the processes according to the invention are in liquid form at 25°C.

According to one preferred embodiment, in particular in the case of a composition intended for caring for and/or making up the lips, the composition used according to the invention is anhydrous or contains less than 3% by weight of water and preferably less than 1% by weight of water, relative to the total weight of the composition.

The term "anhydrous" especially means that water is preferably not deliberately added to the composition, but may be present in trace amount in the various compounds used in the composition.

The composition according to the invention and/or that used according to the process according to the invention may be in the form of a composition for making up the skin and/or the lips, especially for facial or bodily skin; it may be a complexion product such as a foundation, a face powder or an

eyeshadow; a lip product such as a lipcare product; a concealer product; a blusher; an eyeliner; a lip pencil or an eye pencil; a body makeup product; a gloss (lip gloss).

5 According to a first advantageous embodiment of the invention, the composition is intended for making up the lips and it is more particularly a gloss (liquid lipstick).

Advantageously, the lips compositions according to the invention are anhydrous.

10 Preferably, the composition has at 25°C a viscosity of between 1 and 25 Pa.s, preferably between 2 and 20 Pa.s and preferably between 4 and 17 Pa.s.

Preferably, the viscosity at 25°C of a composition according to the invention is between 5 and 16 Pa.s.

### **Protocol for measuring the viscosity**

15 The viscosity measurement is generally performed at 25°C, using a Rheomat RM180 viscometer equipped with a No. 4 spindle the measurement being performed after 10 minutes of rotation of the spindle in the composition (after which time stabilization of the viscosity and of the spin speed of the spindle are observed), at a shear rate of 200 rpm.

20 Preferably, the composition has at 25°C a viscosity of between 1 and 25 Pa.s, preferably between 2 and 20 Pa.s and preferably between 4 and 17 Pa.s.

25 Preferably, the viscosity at 25°C of a composition according to the invention is between 5 and 16 Pa.s, more preferably between 5 and 15 Pa.s.

The terms "between" and "ranging from" should be understood as including the limits.

30 The example that follows is given as an illustration, without any limiting nature.

The present invention also covers a cosmetic process for making up and/or caring for the lips, comprising at least the application to the said lips of a composition as defined above.

### **FATTY PHASE**

35 The composition according to the invention comprises at least one fatty phase and more particularly at least one liquid fatty phase.

### **NON-VOLATILE SILICONE OIL WITH DIMETHICONE PART**

40 The composition according to the invention comprises at least one non-volatile non-phenylated silicone oil having at least a dimethicone part.

45 More particularly, the composition according to the invention, comprise from 20% to 30% by total weight of non-volatile non-phenylated silicone oil(s) having at least a dimethicone part, or mixture

thereof, relative to the total weight of the composition.

Preferably, the composition according to the invention, comprise from 22% to 28% by total weight of non-volatile non-phenylated silicone oil(s) having at least a dimethicone part, or mixture thereof,  
5 relative to the total weight of the composition.

Advantageously, a composition according to the invention for caring for and/or making up the lips and more particularly of lipstick or lipgloss type may comprise from 20% to 30% by total weight of non-volatile non-phenylated silicone oil(s) having at least a dimethicone part, or mixture thereof, relative to  
10 the total weight of the composition.

Advantageously, a composition according to the invention for caring for and/or making up the lips and more particularly of lipstick or lipgloss type may comprise from 22% to 28% by total weight of non-volatile non-phenylated silicone oil(s) having at least a dimethicone part, or mixture thereof, relative to  
15 the total weight of the composition.

The term "oil" means a water-immiscible non-aqueous compound that is liquid at room temperature (25°C) and at atmospheric pressure (760 mmHg).

20 The silicone oils that may be used according to the invention are non-volatile.

In particular, the non-volatile silicone oils that may be used in the invention preferably have a viscosity at 25°C comprised between 9cSt and 800 000 cSt, preferably less than or equal to 600 000 cSt and preferably less than or equal to 500 000 cSt. The viscosity of these silicone oils may be measured  
25 according to standard ASTM D-445.

The term "non-volatile oil" means an oil whose vapour pressure at room temperature and atmospheric pressure is non-zero and less than 0.02 mmHg (2.66 Pa) and better still less than  $10^{-3}$  mmHg (0.13 Pa).

30 The non-volatile silicone oil that may be used in the invention may be chosen especially from silicone oils especially with a viscosity at 25°C of greater than or equal to 9 centistokes (cSt) ( $9 \times 10^{-6}$  m<sup>2</sup>/s) and preferably less than 800 000 cSt, preferably between 50 and 600 000 cSt and preferably between 100 and 500 000 cSt. The viscosity of this silicone oil may be measured according to standard ASTM D-  
35 445.

The expression "Dimethicone" (INCI Name) corresponds to polydimethylsiloxane part (chemical name).

40 The non-volatile silicone oil having at least a dimethicone part can also be called a non-volatile "dimethicone oil".

The expression "non-phenylated silicone oil" or "non phenyl silicone oil" means a silicon oil having no phenyl substituent.

45 Preferably these non-volatile non-phenylated silicone oils are chosen from:

- polydimethylsiloxanes;
- alkyl dimethicones;
- vinyl methyl methicones; and
- also dimethicone modified with optionally fluorinated aliphatic groups, or with functional groups such as hydroxyl, thiol and/or amine groups.

The non-volatile non-phenylated dimethicone oil is preferably chosen from dimethicone oils, preferably chosen from polydimethylsiloxanes and/or alkyl dimethicones, and mixture thereof.

10 Preferably, the non-phenylated non-volatile dimethicone oils can be chosen from:

- non-volatile polydimethylsiloxanes (PDMS),
- PDMSs comprising alkyl or alkoxy groups, which are pendent and/or at the end of the silicone chain, these groups each containing from 2 to 24 carbon atoms, such as cetyldimethicone sold under the commercial reference ABIL WAX 9801 from Evonik Goldschmidt,
- PDMSs comprising aliphatic and/or aromatic groups, or functional groups such as hydroxyl, thiol and/or amine groups,
- polyalkylmethylsiloxanes such as cetyldimethicone sold under the commercial reference ABIL WAX 9801 from Evonik Goldschmidt, or polyalkylmethylsiloxane optionally substituted with a fluorinated group, such as polymethyltrifluoropropyldimethylsiloxanes,
- polyalkylmethylsiloxanes substituted with functional groups such as hydroxyl, thiol and/or amine groups,
- polysiloxanes modified with fatty acids, fatty alcohols or polyoxyalkylenes, and
- mixtures thereof.

25 The non-volatile non-phenylated dimethicone oil is preferably chosen from dimethicone oils, preferably chosen from polydimethylsiloxanes.

Such polydimethylsiloxane (having the INCI name dimethicone) may be chosen from the products commercialised under the reference MIRASIL DM 50 from Bluestar, XIAMETER PMX-200 SILICONE FLUID 350CS from Dow Corning, and/ or XIAMETER PMX-200 SILICONE FLUID 100CS from Dow Corning, and/or XIAMETER PMX-200 SIL FLUID 1000CS from Dow Corning, and/or XIAMETER PMX-200 SIL FLUID 60'000CS from Dow Corning, and/or XIAMETER PMX-200 SIL FLUID 300'000CS from Dow Corning, and /or XIAMETER PMX-200 SILICONE FLUID 500'000CS from Dow Corning, , and PDMS having a viscosity of 10 cSt, vand their mixture.

Preferably, the pdms has a viscosity comprised between 10 cSt and 1000 cSt, more preferably between 100cSt and 500cSt CSt to 500CSt at 25°C.

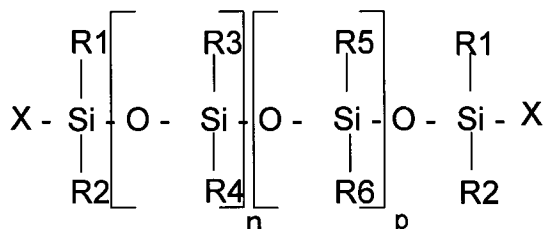
40 Preferably, the polydimethylsiloxane (having the INCI name dimethicone) are chosen from the products commercialised under the reference MIRASIL DM 50 from Bluestar XIAMETER PMX-200 SILICONE FLUID 350CS from Dow Corning, and/ or XIAMETER PMX-200 SILICONE FLUID 100CS from Dow Corning , and their mixture.

45 Preferably the non-volatile non-phenylated dimethicone oil is linear.

Preferably, the composition comprises a mixture of non-volatile dimethicone oils, preferably, a mixture of at least two different polydimethylsiloxanes.

- 5 Preferably, according to this embodiment, the composition comprises a mixture of two non-volatile polydimethylsiloxanes, preferably in a weight ratio comprised between 0.5 and 2.

The non-phenylated linear dimethicone oil may be chosen especially from the silicones of formula (I):



(I)

in which:

R<sub>1</sub>, R<sub>2</sub>, R<sub>5</sub> and R<sub>6</sub> are, together or separately, an alkyl radical containing 1 to 6 carbon atoms, R<sub>3</sub> and R<sub>4</sub> are, together or separately, an alkyl radical containing from 1 to 6 carbon atoms, a vinyl radical, an amine radical or a hydroxyl radical,

- 15 X is an alkyl radical containing from 1 to 6 carbon atoms, a hydroxyl radical or an amine radical, n and p are integers chosen so as to have a fluid compound, in particular whose viscosity at 25°C is between 9 centistokes (cSt) (9 x 10<sup>-6</sup> m<sup>2</sup>/s) and 800 000 cSt.

As additional non-volatile non-phenylated silicone oils that may be used according to the invention, 20 mention may be made of those for which:

- the substituents R<sub>1</sub> to R<sub>6</sub> and X represent a methyl group, and p and n are such that the viscosity is 500 000 cSt, such as the product sold under the name SE30 by the company General Electric, the product sold under the name AK 500000 by the company Wacker, the product sold under the name Mirasil DM 500 000 by the company Bluestar, and the product 25 sold under the name Dow Corning 200 Fluid 500 000 cSt by the company Dow Corning,
- the substituents R<sub>1</sub> to R<sub>6</sub> and X represent a methyl group, and p and n are such that the viscosity is 60 000 cSt, such as the product sold under the name Dow Corning 200 Fluid 60000 CS by the company Dow Corning, and the product sold under the name Wacker Belsil DM 60 000 by the company Wacker,
- 30 - the substituents R<sub>1</sub> to R<sub>6</sub> and X represent a methyl group, and p and n are such that the viscosity is 350 cSt, such as the product sold under the name Dow Corning 200 Fluid 350 CS by the company Dow Corning,
- the substituents R<sub>1</sub> to R<sub>6</sub> represent a methyl group, the group X represents a hydroxyl group, and n and p are such that the viscosity is 700 cSt, such as the product sold under the name 35 Baysilone Fluid T0.7 by the company Momentive.

According to a particular embodiment, the composition comprises a polyalkylmethylsiloxanes, such as cetyldimethicone sold under the commercial reference ABIL WAX 9801 from Evonik Goldschmid. Preferably, the composition comprises from 0.1% to 10%



polyalkylmethylsiloxanes, such as cetyldimethicone.

It should be noted that, among the abovementioned silicone oils, the phenyl dimethicone silicone oils prove to be particularly advantageous. They can especially impart a good level of gloss to the deposit on the skin or the lips made with the composition according to the invention, without generating any tack, and enable forming a non transfer deposit in association with the non-volatile hydrocarbonated apolar oil.

### **ADDITIONAL NON-VOLATILE SILICON OILS**

The composition according to the invention may comprise at least one additional non-volatile silicon oil, different from said non-volatile non-phenylated silicon oil having at least a dimethicone part.

In particular, said additional silicone oil may be a phenyl silicon oil.

Among these additional silicone oils, two types of oil may be distinguished, according to whether or not they contain a dimethicone part.

### **ADDITIONAL NON-VOLATILE SILICONE OIL**

The composition according to the invention may comprises at least one additional non-volatile silicone oil, different from said non-volatile non-phenylated silicone oil having at least a dimethicone part.

More particularly, the composition according to the invention, may comprise from 0.1% to 50% by total weight of additional non-volatile silicone oil(s), or mixture thereof, relative to the total weight of the composition.

In particular, these additional silicone oils may chosen from non-volatile phenylated silicone oil.

The expression "phenylated silicone oil" or "phenyl silicone oil" means a silicone oil having at least one phenyl substituent.

Among these additional non-volatile phenylated silicone oils, two types of oil may be distinguished, according to whether or not they contain a dimethicone part.

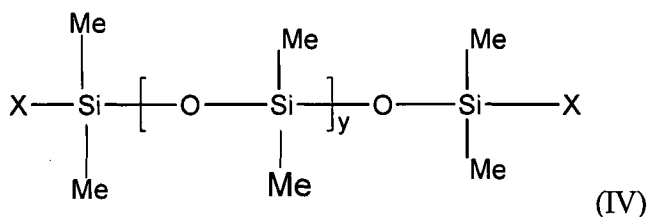
The expression "Dimethicone" (INCI Name) corresponds to polydimethylsiloxane part (chemical name).

#### **1. Additional non-volatile phenylated silicone oil having at least a dimethicone part:**

The non-volatile phenylated silicone oil having at least a dimethicone part can also be called a non-volatile "phenyl dimethicone oil".

According to a first embodiment, the additional non-volatile phenylated silicone oil having at least a dimethicone part may be chosen from:

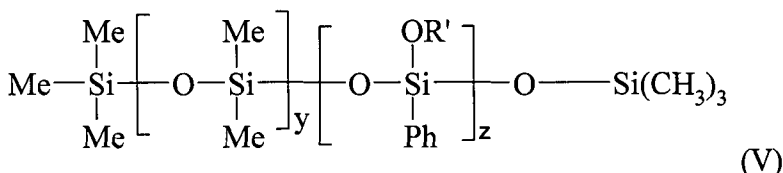
a) the phenyl silicone oils corresponding to the following formula (IV):



in which Me represents methyl, y is between 1 and 1,000 and X represents  $-\text{CH}_2-\text{CH}(\text{CH}_3)(\text{Ph})$ .

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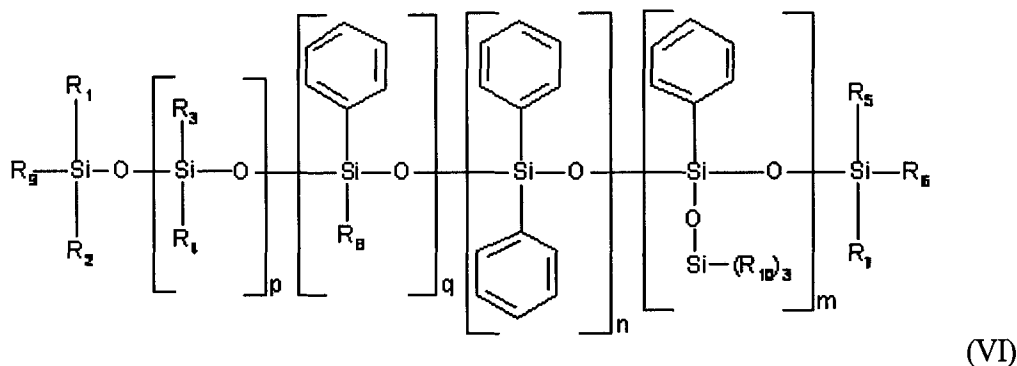
b) the phenyl silicone oils corresponding to formula (V) below:



in which Me is methyl and Ph is phenyl, OR' represents a group  $-\text{OSiMe}_3$  and y ranges between 1 and 1000, and z ranges between 1 and 1000. In particular, y and z are such that compound (V) is a non-volatile oil. Use may be made, for example, of trimethyl siloxyphenyl dimethicone, sold especially under the reference Belsil PDM 1000 sold by the company Wacker.

10

c) the phenyl silicone oils corresponding to formula (VI) below, and mixtures thereof:



15 in which:

- $\text{R}_1$  to  $\text{R}_{10}$ , independently of each other, are saturated or unsaturated, linear, cyclic or branched  $\text{C}_1$ - $\text{C}_{30}$  hydrocarbon-based radicals,
- m, n, p and q are, independently of each other, integers between 0 and 900, p is an integer between 1 and 900, with the proviso that the sum  $m+n+q$  is other than 0.

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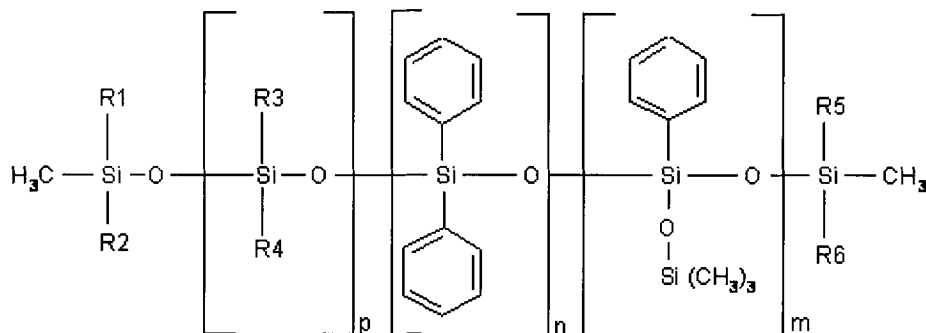
Preferably, the sum  $m+n+q$  is between 1 and 100. Preferably, the sum  $m+n+p+q$  is between 1 and 900 and better still between 1 and 800. Preferably, q is equal to 0.

25

Preferably,  $\text{R}_1$  to  $\text{R}_{10}$ , independently of each other, represent a saturated or unsaturated linear or branched  $\text{C}_1$ - $\text{C}_{30}$ , hydrocarbon radical, preferably saturated, and especially  $\text{C}_1$ - $\text{C}_{12}$  hydrocarbon-based radical, in particular  $\text{C}_3$ - $\text{C}_{16}$  and more particularly  $\text{C}_4$ - $\text{C}_{10}$ , or a monocyclic or polycyclic  $\text{C}_6$ - $\text{C}_{14}$  and especially  $\text{C}_{10}$ - $\text{C}_{13}$  aryl radical, or an aralkyl radical. Preferably,  $\text{R}_1$  to  $\text{R}_{10}$  may each represent a methyl, ethyl, propyl, butyl, isopropyl, decyl, dodecyl or octadecyl radical, or alternatively a phenyl, tolyl,

benzyl or phenethyl radical. R<sub>1</sub> to R<sub>10</sub> may especially be identical, and in addition may preferably be a methyl radical.

d) the phenyl silicone oils corresponding to formula (VII) below, and mixtures thereof:



(VII)

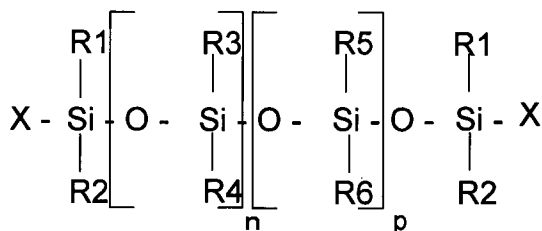
in which:

- R<sub>1</sub>, R<sub>2</sub>, R<sub>5</sub> and R<sub>6</sub>, independently of each other, are saturated or unsaturated, linear, cyclic or branched C<sub>1</sub>-C<sub>30</sub> hydrocarbon-based radicals, preferably are a C<sub>1</sub>-C<sub>30</sub> alkyl radical, an aryl radical or an aralkyl radical,
- R<sub>3</sub> and R<sub>4</sub> are independently of each other C<sub>1</sub>-C<sub>30</sub> hydrocarbon-based alkyl radicals, preferably methyl,
- p is an integer between 1 and 100,
- m and n are, independently of each other, integers between 0 and 100, with the proviso that the sum n+m is between 1 and 100.

Preferably, R<sub>1</sub>, R<sub>2</sub>, R<sub>5</sub> and R<sub>6</sub>, independently of each other, represent a saturated or unsaturated linear or branched C<sub>1</sub>-C<sub>30</sub>, hydrocarbon radical, preferably saturated, and especially C<sub>1</sub>-C<sub>12</sub> hydrocarbon-based radical, in particular C<sub>3</sub>-C<sub>16</sub> and more particularly C<sub>4</sub>-C<sub>10</sub>, or a monocyclic or polycyclic C<sub>6</sub>-C<sub>14</sub> and especially C<sub>10</sub>-C<sub>13</sub> aryl radical, or an aralkyl radical. Preferably, R<sub>1</sub>, R<sub>2</sub>, R<sub>5</sub> and R<sub>6</sub> may each represent a methyl, ethyl, propyl, butyl, isopropyl, decyl, dodecyl or octadecyl radical, or alternatively a phenyl, tolyl, benzyl or phenethyl radical.

R<sub>1</sub>, R<sub>2</sub>, R<sub>5</sub> and R<sub>6</sub> may especially be identical, and in addition may be a methyl radical. Preferably, m = 1 or 2 or 3, and/or n = 0 may apply, in formula (VII).

e) the phenyl silicone oils corresponding to the following formula, and mixtures thereof:



(IX)

in which:

- R<sub>1</sub>, R<sub>2</sub>, R<sub>5</sub> and R<sub>6</sub> are, together or separately, an alkyl radical containing 1 to 6 carbon atoms,
- R<sub>3</sub> and R<sub>4</sub> are, together or separately, an alkyl radical containing from 1 to 6 carbon atoms or

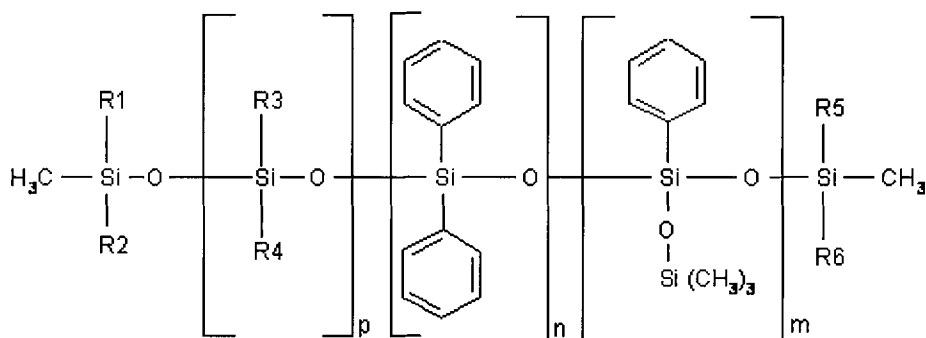
an aryl radical, with the proviso that at least one from R<sub>3</sub> and R<sub>4</sub> is a phenyl radical,

- X is an alkyl radical containing from 1 to 6 carbon atoms, a hydroxyl radical or a vinyl radical,
- n and p being integer superior or equal to 1, chosen so as to give the oil a weight-average molecular mass of less than 200 000 g/mol, preferably less than 150 000 g/mol and more preferably less than 100 000 g/mol.

f) and mixture thereof.

Preferably, the weight-average molecular weight of the additional non-volatile phenyl silicone oil having at least a dimethicone part according to the invention ranges from 500 to 10 000 g/mol.

Preferably, the additional non-volatile phenylated silicone oil having at least a dimethicone part is chosen from phenyl dimethicone oil corresponding to formula (VII)



(VII),

wherein R<sub>1</sub> to R<sub>6</sub>, m, n and p, are as defined before.

A) According to a first embodiment, m=0 and n and p are independently of each other, integers between 1 and 100, in formula (VII). Preferably R<sub>1</sub> to R<sub>6</sub> are methyl radicals. According to this embodiment, the silicone oil is preferably chosen from diphenyl dimethicone such as KF-54 from Shin Etsu (400 cSt), KF54HV from Shin Etsu (5000 cSt), KF-50-300CS from Shin Etsu (300 cSt), KF-53 from Shin Etsu (175cSt), KF-50-100CS from Shin Etsu (100 cSt).

B) According to a second embodiment, p is between 1 and 100 in formula (VII), the sum m is between 1 and 100, and n=0, in formula (VII). As silicone oils of formula (VII) wherein n=0 and R<sub>1</sub> to R<sub>6</sub> are methyl radicals, it is especially possible to use a silicone oil chosen from trimethylsiloxyphenyl dimethicone such as Belsil PDM 1000 from Wacker.

Preferably, the additional non-volatile silicone oils having at least a dimethicone part, are chosen from: trimethylsiloxyphenyl dimethicone (for instance Belsil PDM 1000 from the company Wacker (cf. formula (V) above)), phenyl dimethicones, phenyltrimethylsiloxydiphenylsiloxanes, diphenyl dimethicones (such as KF-54 from Shin Etsu (400 cSt), KF54HV from Shin Etsu (5000 cSt), KF-50-300CS from Shin Etsu (300 cSt), KF-53 from Shin Etsu (175cSt), KF-50-100CS from Shin Etsu (100 cSt).

According to a first preferred embodiment, the additional non-volatile silicon oil is a phenyl silicone oil having at least a dimethicone part, and is preferably chosen from :

- diphenyl dimethicone such as KF-54 from Shin Etsu (400 cSt), KF54HV from Shin Etsu (5000

cSt), KF-50-300CS from Shin Etsu (300 cSt), KF-53 from Shin Etsu (175cSt), KF-50-100CS from Shin Etsu (100 cSt);

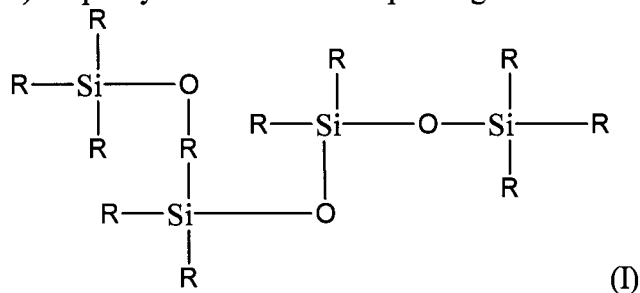
- trimethyl siloxyphenyl dimethicone, such as Belsil PDM 1000 from Wacker,
- trimethylsiloxyphenyltrimethicone, and
- 5 - mixture thereof.

## 2. Additional non-volatile phenylated silicon oil having no dimethicone part

10 According to one second embodiment variant, a composition according to the invention contains at least one additional non-volatile phenylated silicone oil having no dimethicone part.

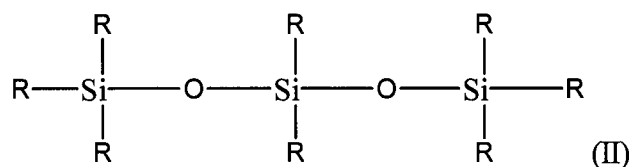
The expression “phenylated silicone oil” or “phenyl silicone oil” means a silicone oil having at least one phenyl substituent.

15 The additional non-volatile phenylated silicone oil having no dimethicone part may be chosen from a) the phenyl silicone oils corresponding to the following formula (I):



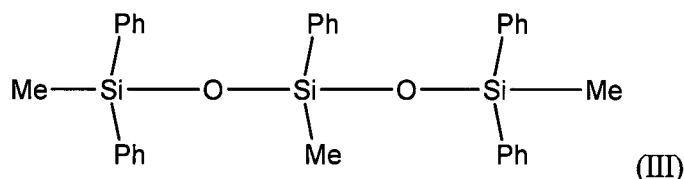
20 in which the groups R represent, independently of each other, a methyl or a phenyl, with the proviso that at least one group R represents a phenyl. Preferably, in this formula, the phenyl silicone oil comprises at least three phenyl groups, for example at least four, at least five or at least six.

b) the phenyl silicone oils corresponding to the following formula (II):



25 in which the groups R represent, independently of each other, a methyl or a phenyl, with the proviso that at least one group R represents a phenyl. Preferably, in this formula, the said organopolysiloxane comprises at least three phenyl groups, for example at least four or at least five. Mixtures of the phenyl organopolysiloxanes described previously may be used. Examples that may be mentioned include  
30 mixtures of triphenyl, tetraphenyl or pentaphenyl organopolysiloxanes.

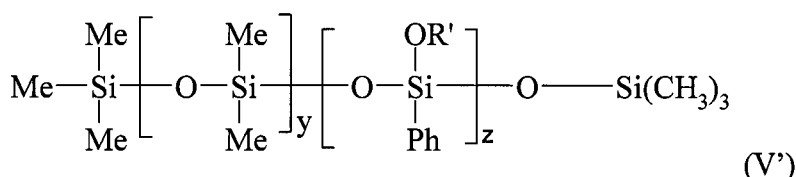
c) the phenyl silicone oils corresponding to the following formula (III):



in which Me represents methyl, Ph represents phenyl.

Such a phenyl silicone oil is preferably trimethyl pentaphenyl trisiloxane, or Tetramethyl Tetraphenyl Trisiloxane. Such oils are especially manufactured by Dow Corning under the reference PH-1555 HRI or Dow Corning 555 Cosmetic Fluid (chemical name: 1,3,5-trimethyl-1,1,3,5,5-pentaphenyl trisiloxane; INCI name: trimethyl pentaphenyl trisiloxane), or Tetramethyl Tetraphenyl Trisiloxane sold under the reference Dow Corning 554 Cosmetic Fluid by Dow Corning may also be used.

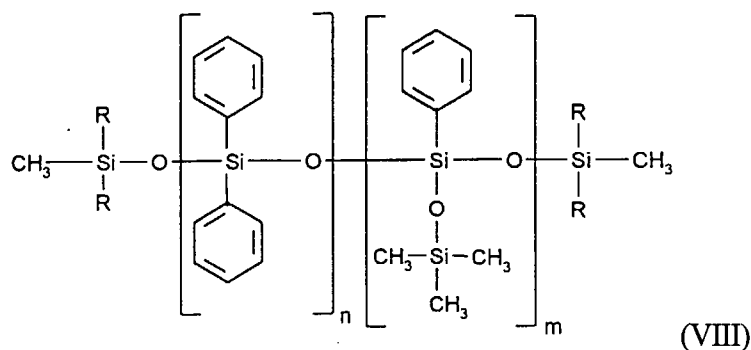
d) the phenyl silicone oils corresponding to formula (V') below:



in which Me is methyl and Ph is phenyl, OR' represents a group -OSiMe<sub>3</sub> and y is 0 and z ranges between 1 and 1000, in particular, z is such that compound (V') is a non-volatile oil.

According to a second embodiment, y is equal to 0. Use may be made, for example, of phenyl trimethylsiloxy trisiloxane, sold especially under the reference Dow Corning 556 Cosmetic Grade Fluid (DC556).

e) the phenyl silicone oils corresponding to formula (VIII) below, and mixtures thereof:



in which:

- R, independently of each other, are saturated or unsaturated, linear, cyclic or branched C<sub>1</sub>-C<sub>30</sub> hydrocarbon-based radicals, preferably R is a C<sub>1</sub>-C<sub>30</sub> alkyl radical, an aryl radical or an aralkyl radical,
- m and n are, independently of each other, integers between 0 and 100, with the proviso that the sum n+m is between 1 and 100.

Preferably, R, independently of each other, represent a saturated or unsaturated linear or branched C<sub>1</sub>-

C<sub>30</sub>, hydrocarbon radical, preferably saturated, and especially C<sub>1</sub>-C<sub>12</sub> hydrocarbon-based radical, in particular C<sub>3</sub>-C<sub>16</sub> and more particularly C<sub>4</sub>-C<sub>10</sub>, or a monocyclic or polycyclic C<sub>6</sub>-C<sub>14</sub> and especially C<sub>10</sub>-C<sub>13</sub> aryl radical, or an aralkyl radical. Preferably, R may each represent a methyl, ethyl, propyl, butyl, isopropyl, decyl, dodecyl or octadecyl radical, or alternatively a phenyl, tolyl, benzyl or phenethyl radical. R may especially be identical, and in addition may be a methyl radical. Preferably, m = 1 or 2 or 3, and/or n = 0 may apply, in formula (VIII).

According to a preferred embodiment, n is an integer between 0 and 100 and m is an integer between 1 and 100, with the proviso that the sum n+m is between 1 and 100, in formula (VIII). Preferably R is methyl radical.

According to one embodiment, a phenyl silicone oil of formula (VIII) with a viscosity at 25°C of between 5 and 1500 mm<sup>2</sup>/s (i.e. 5 to 1500 cSt), and preferably with a viscosity of between 5 and 1000 mm<sup>2</sup>/s (i.e. 5 to 1000 cSt) may be used.

According to this embodiment, the non-volatile phenyl silicone oil is preferably chosen from phenyl trimethicones; such as DC556 from Dow Corning (22.5 cSt), the oil diphenylsiloxylphenyltrimethicone such as KF56 A from Shin Etsu, the oil Silbione 70663V30 from Rhône-Poulenc (28 cSt). The values in parentheses represent the viscosities at 25°C.

According to this embodiment, when n=0, said silicone oil is preferably DC556 from Dow Corning, and when m and n are between 1 and 100, said silicone oil is preferably KF56 A from Shin Etsu.

f) and mixture thereof.

According to a second embodiment, the additional silicone oil is a phenyl silicone oil having no dimethicone part, preferably chosen from:

- phenyl trimethylsiloxyl trisiloxane, phenyl trimethicones; such as DC556 from Dow Corning,
- Tetramethyl Tetraphenyl Trisiloxane, such as PH-1554 HRI or Dow Corning 554 Cosmetic Fluid from Dow Corning,
- diphenylsiloxyl phenyltrimethicone such as KF56 A from Shin Etsu, the oil Silbione 70663V30 from Rhône-Poulenc
- trimethyl pentaphenyl trisiloxane such as PH-1555 HRI or Dow Corning 555 Cosmetic Fluid from Dow Corning,
- and mixture thereof.

As preferred additional non-volatile silicone oils, different from said non-volatile non-phenylated dimethicone oil, examples that may be mentioned include silicone oils such as:

- non-volatile phenyl silicone oil with no dimethicone part, preferably chosen from : Tetramethyl Tetraphenyl Trisiloxane (such as PH-1554 HRI or Dow Corning 554 Cosmetic Fluid from Dow Corning), phenyl trimethicones (such as the phenyl trimethicone sold under the trade name DC556 by Dow Corning), phenyltrimethylsiloxyl diphenylsiloxanes, diphenylmethyl diphenyltrisiloxanes, 2-phenylethyl trimethylsiloxylsilicates, trimethylpentaphenyl trisiloxane (such as the product sold under the name Dow Corning PH-1555 HRI Cosmetic fluid by Dow Corning) (cf. formula (III) above), diphenylsiloxyl

- phenyltrimethicone (such as KF56 A from Shin Etsu),
- non-volatile phenyl silicone oil having at least a dimethicone part, and
- mixtures thereof.

5 The composition according to the invention may contain from 0.1% to 50% by weight, in particular from 1% to 30% by weight and preferably from 2% to 20% by weight in total of additional non-volatile phenylated silicone oil(s), relative to the total weight of the composition.

10 Preferably, the compositions according to the invention comprise no additional non-volatile phenylated silicon oil, different from said non-volatile non-phenylated dimethicone oil.

### **NON-VOLATILE HYDROCARBONATED APOLAR OIL**

15 The composition according to the invention comprises at least one non-volatile apolar hydrocarbonated oil (also called apolar "hydrocarbon-based" oil).

More particularly, the composition according to the invention comprises from 10% to 75% by total weight of non-volatile hydrocarbonated apolar oil(s), relative to the total weight of the composition.

20 For the purposes of the present invention, the term "apolar oil" means an oil whose solubility parameter at 25°C,  $\delta_a$ , is equal to 0 (J/cm<sup>3</sup>)<sup>1/2</sup>.

25 The definition and calculation of the solubility parameters in the Hansen three-dimensional solubility space are described in the article by C.M. Hansen: "The three dimensional solubility parameters", J. Paint Technol. 39, 105 (1967).

According to this Hansen space:

- $\delta_D$  characterizes the London dispersion forces derived from the formation of dipoles induced during molecular impacts;
- 30 -  $\delta_p$  characterizes the Debye interaction forces between permanent dipoles and also the Keesom interaction forces between induced dipoles and permanent dipoles;
- $\delta_h$  characterizes the specific interaction forces (such as hydrogen bonding, acid/base, donor/acceptor, etc.); and
- $\delta_a$  is determined by the equation:  $\delta_a = (\delta_p^2 + \delta_h^2)^{1/2}$ .

35 The parameters  $\delta_p$ ,  $\delta_h$ ,  $\delta_D$  and  $\delta_a$  are expressed in (J/cm<sup>3</sup>)<sup>1/2</sup>.

40 The term "hydrocarbon-based oil" (or "hydrocarbonated oil", or "hydrocarbon oil") means an oil formed essentially from, or even constituted by, carbon and hydrogen atoms, and optionally oxygen and nitrogen atoms, and not containing any silicon or fluorine atoms. It may contain alcohol, ester, ether, carboxylic acid, amine and/or amide groups.

45 These oils may be of plant, mineral or synthetic origin. Preferably, the non-volatile apolar hydrocarbon-based oil may be chosen from linear or branched hydrocarbons of mineral or synthetic origin.



In particular said -volatile apolar hydrocarbon-based oil may be chosen from:

- liquid paraffin or derivatives thereof,
- squalane,
- 5 - isoeicosane,
- naphthalene oil,
- polybutylenes such as Indopol H-100 (molar mass or MW = 965 g/mol), Indopol H-300 (MW = 1340 g/mol) and Indopol H-1500 (MW = 2160 g/mol) sold or manufactured by the company Amoco,
- 10 - polyisobutenes,
- hydrogenated polyisobutylenes such as Parleam® sold by the company Nippon Oil Fats, Panalane H-300 E sold or manufactured by the company Amoco (MW = 1340 g/mol), Viseal 20000 sold or manufactured by the company Syntel (MW = 6000 g/mol) and Rewopal PIB 1000 sold or manufactured by the company Witco (MW = 1000 g/mol), or alternatively
- 15 Parleam Lite sold by NOF Corporation,
- decene/butene copolymers, polybutene/polyisobutene copolymers, especially Indopol L-14,
- polydecenes and hydrogenated polydecenes such as: Puresyn 10 (MW = 723 g/mol) and Puresyn 150 (MW = 9200 g/mol) sold or manufactured by the company Mobil Chemicals, or alternatively Puresyn 6 sold by ExxonMobil Chemical), and
- 20 - mixtures thereof.

Preferably, the composition according to the invention comprises at least one non-volatile hydrocarbon-based apolar oil, preferably chosen from polybutenes, polyisobutenes, hydrogenated polyisobutenes, polydecenes and/or hydrogenated polydecenes, and mixtures thereof.

25 A composition according to the invention may comprise a content of non-volatile apolar hydrocarbonated oil(s) ranging from 10% to 75% by total weight, preferably from 20% to 60% by total weight and preferably from 30% to 50% by weight, relative to the total weight of the composition.

30 Preferably said non-volatile apolar hydrocarbonated oil comprise at least a hydrogenated polydecene and/or hydrogenated polyisobutene, preferably in a total content ranging from 10% to 75% by total weight, preferably from 20% to 60% by total weight, relative to the total weight of the composition.

35 Preferably said non-volatile hydrocarbon oil comprise at least a hydrogenated polydecene and/or hydrogenated polyisobutene, preferably in a total content ranging from from 30% to 50% by total weight, relative to the total weight of the composition.

40 Preferably, the weight ratio of the total apolar non-volatile hydrocarbonated oil(s) to the total non-volatile non-phenylated dimethicone oil(s) is between 0,3 and 4.

More preferably, the weight ratio of the total apolar non-volatile hydrocarbonated oil(s) to the total non-volatile non-phenylated dimethicone oil(s) is between between 0,5 and 3,5.

45 More preferably, the weight ratio of the total apolar non-volatile hydrocarbonated oil(s) to the total non-volatile non-phenylated dimethicone oil(s) is between 1 and 3.

More preferably, the weight ratio of the total apolar non-volatile hydrocarbonated oil(s) to the total non-volatile non-phenylated dimethicone oil(s) is between 1.5 and 2.5.

- 5 More preferably, the weight ratio of the non-volatile apolar hydrocarbonated oil(s) to the non-volatile silicon oil(s), preferably to the non-volatile non-phenylated silicon oil(s) having at least a dimethicone part, is between 0,3 and 4, preferably between 0,5 and 3,3, preferably between 1 and 3, and even more preferably between 1.5 and 2.5.
- 10 More preferably, the weight ratio of the non-volatile non-phenylated silicon oil(s) to the non-volatile apolar hydrocarbonated oil(s) is between 1.5 and 2.5.

The composition according to the invention may also comprises at least one additional compound, preferably chosen from a hydrocarbonated polar oil, and/or an additional non-volatile silicone oil, different from said non-phenylated silicon oil having at least a dimethicone part, and/or a volatile oil, and/or a fatty pasty compound, and/or a filler, and/or a colouring agent, and/or mixture thereof.

#### **ADDITIONAL NON-VOLATILE HYDROCARBONATED POLAR OIL**

- 20 According to a preferred embodiment, the composition according to the invention comprises an additional non-volatile polar hydrocarbonated oil.

For the purposes of the present invention, the term “polar oil” means an oil whose solubility parameter at 25°C,  $\delta_a$ , is other than 0 (J/cm<sup>3</sup>)<sup>1/2</sup>.

25 These oils may be of plant, mineral or synthetic origin.

In particular, the additional hydrocarbon-based non-volatile polar oil may be chosen from the list of oils below, and mixtures thereof:

- 30 - hydrocarbon-based plant oils such as liquid triglycerides of fatty acids containing from 4 to 10 carbon atoms, for instance heptanoic or octanoic acid triglycerides or jojoba oil;
- ester oils, preferably chosen from:
- fatty acid esters, in particular of 4 to 22 carbon atoms, and especially of octanoic acid, heptanoic acid, lanolic acid, oleic acid, lauric acid or stearic acid, for instance propylene glycol dioctanoate, propylene glycol monoisostearate or neopentyl glycol diheptanoate;
- 35 - synthetic esters, for instance the oils of formula R<sub>1</sub>COOR<sub>2</sub> in which R<sub>1</sub> represents a linear or branched fatty acid residue comprising from 4 to 40 carbon atoms and R<sub>2</sub> represents a hydrocarbon-based chain, which is especially branched, containing from 4 to 40 carbon atoms, on condition that R<sub>1</sub> + R<sub>2</sub> ≥ 16, for instance purcellin oil (cetostearyl octanoate), isononyl isononanoate, C<sub>12</sub> to C<sub>15</sub> alkyl benzoate, 2-ethylhexyl palmitate, octyldodecyl neopentanoate, 2-octyldodecyl stearate, 2-octyldodecyl erucate, oleyl erucate, isostearyl isostearate, 2-octyldodecyl benzoate, alcohol or polyalcohol octanoates, decanoates or ricinoleates, isopropyl myristate, isopropyl palmitate, butyl stearate, hexyl laurate, 2-ethylhexyl palmitate, 2-hexyldecyl laurate, 2-octyldecyl palmitate, 2-octyldodecyl myristate or 2-diethylhexyl succinate;
- 45 preferably, the preferred synthetic esters R<sub>1</sub>COOR<sub>2</sub> in which R<sub>1</sub> represents a linear

or branched fatty acid residue comprising from 4 to 40 carbon atoms and  $R_2$  represents a hydrocarbon-based chain, which is especially branched, containing from 4 to 40 carbon atoms are such that  $R_1$  and  $R_2 \geq 20$ ;

- linear fatty acid esters with a total carbon number ranging from 35 to 70, for instance  
5 pentaerythrityl tetrapelargonate (MW = 697 g/mol);
- hydroxylated esters, preferably with a total carbon number ranging from 35 to 70, for instance  
polyglyceryl-2 triisostearate (MW = 965 g/mol), isostearyl lactate, octyl hydroxystearate,  
octyldodecyl hydroxystearate, diisostearyl malate, glyceryl stearate; diethylene glycol  
diisononanoate;
- 10 - esters of aromatic acids and of alcohols comprising 4 to 22 atoms, such as tridecyl trimellitate  
(MW = 757 g/mol);
- $C_{24}$ - $C_{28}$  esters of branched fatty alcohols or fatty acids such as those described in patent  
application EP-A-0 955 039, and especially triisoarachidyl citrate (MW = 1033.76 g/mol),  
pentaerythrityl tetraisononanoate (MW = 697 g/mol), glyceryl triisostearate (MM = 891 g/mol),  
15 glyceryl tris(2-decyl)tetradecanoate (MW = 1143 g/mol), pentaerythrityl tetraisostearate  
(MW = 1202 g/mol), polyglyceryl-2 tetraisostearate (MW = 1232 g/mol) or pentaerythrityl  
tetrakis(2-decyl)tetradecanoate (MW = 1538 g/mol),
- polyesters resulting from the esterification of at least one hydroxylated carboxylic acid  
triglyceride with an aliphatic monocarboxylic acid and with an aliphatic dicarboxylic acid,  
20 which is optionally unsaturated, for instance the succinic acid and isostearic acid castor oil sold  
under the reference Zenigloss by Zenitech;
- esters of a diol dimer and of a diacid dimer of general formula  $HO-R^1-(-OCO-R^2-COO-R^1-)_h-$   
OH,  
in which:  
25  $R^1$  represents a diol dimer residue obtained by hydrogenation of dilinoleic diacid,  
 $R^2$  represents a hydrogenated dilinoleic diacid residue, and  
 $h$  represents an integer ranging from 1 to 9,  
especially the esters of dilinoleic diacids and of dilinoleyl diol dimers sold by the  
company Nippon Fine Chemical under the trade names Lusplan DD-DA5® and DD-  
30 DA7®,
- polyesters obtained by condensation of an unsaturated fatty acid dimer and/or trimer and of  
diol, such as those described in patent application FR 0 853 634, in particular such as dilinoleic  
acid and 1,4-butanediol. Mention may especially be made in this respect of the polymer sold  
by Biosynthis under the name Viscoplast 14436H (INCI name: dilinoleic acid/butanediol  
35 copolymer), or copolymers of polyols and of diacid dimers, and esters thereof, such as  
Hailuscent ISDA;
- fatty alcohols containing from 12 to 26 carbon atoms, which are preferably branched, for  
instance octyldodecanol, 2-butyloctanol, 2-hexyldecanol, 2-undecylpentadecanol and oleyl  
alcohol;
- 40 -  $C_{12}$ - $C_{22}$  higher fatty acids, such as oleic acid, linoleic acid and linolenic acid, and mixtures  
thereof;
- oils of plant origin, such as sesame oil (820.6 g/mol);
- fatty acids containing from 12 to 26 carbon atoms, for instance oleic acid;
- dialkyl carbonates, the two alkyl chains possibly being identical or different, such as dicaprylyl  
45 carbonate sold under the name Cetiol CC® by Cognis; and

- vinylpyrrolidone copolymers such as the vinylpyrrolidone/1-hexadecene copolymer, Antaron V-216 sold or manufactured by the company ISP (MW = 7300 g/mol).

Preferably, the composition according to the invention comprises at least one additional non-volatile polar hydrocarbon oil chosen from:

- vinylpyrrolidone copolymers, preferably such as the vinylpyrrolidone/1-hexadecene copolymer;
- hydroxylated esters, preferably with a total carbon number ranging from 35 to 70, preferably chosen from polyglyceryl-2 triisostearate, isostearyl lactate, octyl hydroxystearate, octyldodecyl hydroxystearate, diisostearyl malate, glyceryl stearate; diethylene glycol diisononanoate;
- oils from plant origin preferably chosen from liquid triglycerides of fatty acids;
- C<sub>24</sub>-C<sub>28</sub> esters of branched fatty alcohols or fatty acids preferably chosen from triisoarachidyl citrate (MW = 1033.76 g/mol), pentaerythrityl tetraisononanoate (MW = 697 g/mol), glyceryl triisostearate (MW = 891 g/mol), glyceryl tris(2-decyl)tetradecanoate (MW = 1143 g/mol), pentaerythrityl tetraisostearate (MW = 1202 g/mol), polyglyceryl-2 tetraisostearate (MW = 1232 g/mol) or pentaerythrityl tetrakis(2-decyl)tetradecanoate (MW = 1538 g/mol).
- synthetic esters of formula R<sub>1</sub>COOR<sub>2</sub> in which R<sub>1</sub> represents a linear or branched fatty acid residue containing from 4 to 40 carbon atoms and R<sub>2</sub> represents a hydrocarbon-based chain that is especially branched, containing from 4 to 40 carbon atoms, provided that R<sub>1</sub> + R<sub>2</sub> ≥ 16; and/or
- mixtures thereof.

A composition according to the invention may comprise a content of additional non-volatile polar hydrocarbonated oil ranging from 1% to 80%, for example from 2% to 70% by weight and preferably from 5% to 60% by weight, relative to the total weight of the composition.

A composition according to the invention may comprise a content of additional non-volatile polar hydrocarbonated oil ranging from 5% to 60% by weight, preferably from 10 to 50% by weight, relative to the total weight of the composition.

Preferably, the weight ratio of the total non-volatile hydrocarbonated oil(s) (ie polar and apolar oil) to the total non-volatile silicone oil(s) is between 0,3 and 10.

More preferably, the weight ratio of the total non-volatile hydrocarbonated oil(s) to the total non-volatile phenyl dimethicone oil(s) is between between 0,5 and 5.

More preferably, the weight ratio of the total non-volatile hydrocarbonated oil(s) to the total non-volatile phenyl dimethicone oil(s) is between 1 and 3.

More preferably, the weight ratio of the total non-volatile hydrocarbonated oil(s) to the total non-volatile phenyl dimethicone oil(s) is between 1.5 and 2.5.

A cosmetic makeup and/or care composition according to the invention also comprises a cosmetically acceptable medium that may comprise the usual ingredients, as a function of the intended use of the

composition.

### **ADDITIONAL FATTY PHASE**

5 According to one embodiment, the composition according to the invention may comprise, besides said non-volatile silicone oil and said non-volatile hydrocarbonated oil, an additional liquid fatty phase, preferably chosen from non-volatile polar hydrocarbonated oils described before, and/or non-volatile silicone oils, different from said non-phenylated dimethicone oils, as described before.

10 The additional liquid fatty phase may represent from 0.1% to 80% by weight relative to the total weight of the composition.

In particular, a composition according to the invention and/or used in a composition according to the invention may comprise from 0.1% to 75% by weight of an additional liquid fatty phase relative to its  
15 total weight.

More particularly, a composition according to the invention and/or used in a composition according to the invention may comprise from 0.5% to 70% by weight of an additional liquid fatty phase relative to its total weight.

20

### **VOLATILE OIL**

According to one preferred embodiment, the composition according to the invention may comprise a  
25 volatile oil.

Thus, a composition under consideration according to the invention may advantageously comprise one or more oils, which may be chosen especially from volatile hydrocarbon-based oils, volatile silicone oil and fluoro oils, and mixtures thereof.

30 For the purposes of the invention, the term "volatile oil" means an oil that is capable of evaporating on contact with keratin materials in less than one hour, at room temperature (25°C) and atmospheric pressure (760 mmHg). The volatile oil is a volatile cosmetic oil, which is liquid at room temperature, especially having a non-zero vapour pressure, at room temperature and atmospheric pressure, in particular having a vapour pressure ranging from 0.13 Pa to 40 000 Pa ( $10^{-3}$  to 300 mmHg), preferably  
35 ranging from 1.3 Pa to 13 000 Pa (0.01 to 100 mmHg) and preferentially ranging from 1.3 Pa to 1300 Pa (0.1 to 10 mmHg).

The oils may be of animal, plant, mineral or synthetic origin.

### **Volatile fluoro oil**

The term "fluoro oil" means an oil comprising at least one fluorine atom.

The fluoro oils that may be used in the invention may be chosen from fluorosilicone oils, fluoro  
45 polyethers and fluorosilicones as described in document EP-A-847 752, and perfluoro compounds.

According to the invention, the term "perfluoro compounds" means compounds in which all the hydrogen atoms have been replaced with fluorine atoms.

5 According to one preferred embodiment, the fluoro oil according to the invention is chosen from perfluoro oils. As examples of perfluoro oils that may be used in the invention, mention may be made of perfluorodecalins and perfluoroperhydrophenanthrenes.

According to one preferred embodiment, the fluoro oil is chosen from  
10 perfluoroperhydrophenanthrenes, and especially the Fiflow® products sold by the company Créations Couleurs. In particular, use may be made of the fluoro oil whose INCI name is perfluoroperhydrophenanthrene, sold under the reference Fiflow 220 by the company F2 Chemicals.

### **Volatile hydrocarbon oil**

15 According to a preferred embodiment, the composition according to the invention further comprises a volatile hydrocarbonated oil such as isododecane and/or isohexadecane.

Such compound is compatible with the non-volatile hydrocarbonated and silicone oil and improve the  
20 spreadability during application and the transfer resistance of the deposit.

The term "hydrocarbon-based oil" (or "hydrocarbonated oil", or "hydrocarbon oil") means an oil  
formed essentially from, or even constituted by, carbon and hydrogen atoms, and optionally oxygen  
and nitrogen atoms, and not containing any silicon or fluorine atoms. It may contain alcohol, ester,  
25 ether, carboxylic acid, amine and/or amide groups.

The volatile hydrocarbon-based oils may be chosen from hydrocarbon-based oils containing from 8 to  
16 carbon atoms, and especially C<sub>8</sub>-C<sub>16</sub> branched alkanes (also known as isoparaffins), for instance  
isododecane (also called 2,2,4,4,6-pentamethylheptane), isodecane and isohexadecane, and mixture  
30 thereof.

The volatile hydrocarbon-based oil may also be a linear volatile alkane containing 7 to 17 carbon  
atoms, in particular 9 to 15 carbon atoms and more particularly 11 to 13 carbon atoms. Mention may  
be made especially of n-nonadecane, n-decane, n-undecane, n-dodecane, n-tridecane, n-tetradecane, n-  
35 pentadecane and n-hexadecane, and mixtures thereof.

The term "hydrocarbon-based oil" is intended to mean an oil formed essentially, or even constituted, of  
carbon and hydrogen atoms, and optionally of oxygen and nitrogen atoms, and containing no silicon or  
fluorine atoms. It may contain alcohol, ester, ether, carboxylic acid, amine and/or amide groups.  
40

According to one embodiment, a composition according to the invention also comprises at least  
isododecane and/or isohexadecane.

According to one embodiment, the composition is free of additional volatile hydrocarbonated oil other  
45 than isododecane and/or isohexadecane.

More particularly, the composition according to the invention contains between 0.1% and 20% by weight of volatile oil, preferably isododecane and/or isohexadecane, relative to its total weight.

5 Preferably, the composition according to the invention contains between 1% and 15% by weight of volatile oil, preferably of isododecane and/or isohexadecane, relative to its total weight.

Advantageously, the composition according to the invention contains between 1% and 10% by weight of volatile oil, preferably of isododecane and/or isohexadecane, relative to its total weight.

10

As other volatile hydrocarbon-based solvents (oils) that can be used in the composition according to the invention, mention may also be made of ketones which are liquid at ambient temperature, such as methyl ethyl ketone or acetone; short-chain esters (containing from 3 to 8 carbon atoms in total), such as ethyl acetate, methyl acetate, propyl acetate or n-butyl acetate; ethers which are liquid at ambient

15

temperature, such as diethyl ether, dimethyl ether or dichlorodiethyl ether; alcohols, and in particular linear or branched lower monoalcohols containing from 2 to 5 carbon atoms, for instance ethanol, isopropanol or n-propanol.

According to one preferred embodiment, the volatile oil has a flash point of greater than 65°C, and better still greater than 80°C. By way of example of such a volatile oil, mention may be made of isohexadecane.

20

Advantageously, the composition according to the invention comprises less than 15% and better still less than 12% by weight of volatile oil having a flash point of less than 80°C, relative to the total weight of the composition.

25

### **Volatile silicone oils**

According to an embodiment, the compositions according to the invention may comprise at least one volatile silicone oil.

30

The term "silicone oil" is intended to mean an oil comprising at least one silicon atom, and in particular comprising Si-O groups.

35 The volatile silicone oil that may be used in the invention may be chosen from silicone oils especially having a viscosity  $\leq 8$  centistokes (cSt) ( $8 \times 10^{-6} \text{ m}^2/\text{s}$ ) and preferably greater than 0.5 cSt .

The term "silicone oil" is intended to mean an oil comprising at least one silicon atom, and in particular comprising Si-O groups.

40

The volatile silicone oil that can be used in the invention may be chosen from silicone oils having a flash point ranging from 40°C to 150°C, preferably having a flash point of greater than 55°C and less than or equal to 105°C, and preferentially ranging from 65°C to 95°C. The flash point is in particular measured according to ISO standard 3679.

45

The volatile silicone oil may be chosen from linear or cyclic silicone oils such as linear or cyclic polydimethylsiloxanes (PDMSs) having from 3 to 7 silicon atoms.

5 Volatile silicone oils that may more particularly be mentioned include decamethylcyclopentasiloxane sold especially under the name DC-245 by the company Dow Corning,  
dodecamethylcyclohexasiloxane sold especially under the name DC-246 by the company Dow  
Corning, octamethyltrisiloxane sold especially under the name DC-200 Fluid 1 cSt by the company  
Dow Corning, polydimethylsiloxanes such as decamethyltetrasiloxane sold especially under the name  
10 DC-200 Fluid 1.5 cSt by the company Dow Corning and DC-200 Fluid 5 cSt sold by the company  
Dow Corning, octamethylcyclotetrasiloxane, heptamethylhexyltrisiloxane, heptamethylethyltrisiloxane,  
heptamethyloctyltrisiloxane and dodecamethylpentasiloxane, octyl trimethicone, hexyl trimethicone,  
decamethylcyclopentasiloxane (cyclopentasiloxane or D5), octamethylcyclotetrasiloxane (cyclotetra-  
dimethylsiloxane or D4), dodecamethylcyclohexasiloxane (D6), decamethyltetrasiloxane (L4), KF 96  
A from Shin Etsu, and mixtures thereof.

### SOLID FATTY SUBSTANCES

A composition according to the invention may preferably also comprise at least one solid fatty  
substance especially chosen from waxes and/or pasty fatty substances.

#### Waxes

According to a first preferred embodiment, the composition is free of wax or contains less than 5% by  
weight of waxes, preferably less than 3%, relative to the total weight of the composition.

According to a second embodiment, the composition comprises at least one wax. According to this  
embodiment, preferably, the amount of wax(es) in the makeup and/or care composition according to  
the invention is between 0.5% and 30% by weight, especially from 1% to 20% by weight or even 2%  
to 15% by weight, relative to the total weight of the composition.

In particular, the presence of waxes is preferred when the composition according to the invention is  
solid at room temperature. In particular, in case a makeup composition, for instance for the lips, the  
composition can be a lipsticks.

35 The term "wax" means a lipophilic compound that is solid at room temperature (25°C), with a  
reversible solid/liquid change of state, having a melting point of greater than or equal to 30°C, which  
may be up to 200°C. The waxes may be chosen from waxes of animal, plant, mineral or synthetic  
origin, and mixtures thereof. Mention may be made especially of hydrocarbon-based waxes, for  
instance beeswax, lanolin wax and Chinese insect waxes; rice bran wax, carnauba wax, candelilla wax,  
40 ouricury wax, alfalfa wax, berry wax, shellac wax, Japan wax and sumach wax; montan wax, orange  
wax, lemon wax, microcrystalline waxes, paraffins and ozokerite; polyethylene waxes, the waxes  
obtained by Fisher-Tropsch synthesis and waxy copolymers, and also esters thereof. Mention may also  
be made of waxes obtained by catalytic hydrogenation of animal or plant oils containing linear or  
branched C<sub>8</sub>-C<sub>32</sub> fatty chains. Among these, mention may be made especially of hydrogenated  
45 sunflower oil, hydrogenated castor oil, hydrogenated coconut oil, hydrogenated lanolin oil and



bis(1,1,1-trimethylolpropane) tetrastearate. Mention may also be made of silicone waxes and fluoro waxes. The waxes obtained by hydrogenation of castor oil esterified with cetyl alcohol may also be used.

- 5 Advantageously, a composition according to the invention may comprise at least one wax, especially a hydrocarbon-based wax.

### **Pasty fatty substances**

- 10 According to a first embodiment, the composition is free of pasty fatty substances.

According to a second preferred embodiment, the composition comprises at least one pasty fatty substance.

- 15 According to this embodiment, preferably, the amount of pasty fatty substance in the makeup and/or care composition according to the invention is between 0.5% and 60% by weight, especially from 1% to 50% by weight or even 2% to 40% by weight, relative to the total weight of the composition.

- 20 The term “pasty”, within the meaning of the present invention, is understood to mean a lipophilic fatty compound with a reversible solid/liquid change of state exhibiting, in the solid state, an anisotropic crystalline arrangement and comprising, at a temperature of 23°C, a liquid fraction and a solid fraction.

- 25 The term “pasty compound”, within the meaning of the invention, is understood to mean a compound having a hardness at 20°C ranging from 0.001 to 0.5 MPa, preferably from 0.002 to 0.4 MPa.

- 30 The hardness is measured according to a method of penetration of a probe into a sample of compound and in particular using a texture analyser (for example, the TA-XT2i from Rheo) equipped with a stainless steel cylinder with a diameter of 2 mm. The hardness measurement is carried out at 20°C at the centre of 5 samples. The cylinder is introduced into each sample at a pre-rate of 1 mm/s and then at a measuring rate of 0.1 mm/s, the depth of penetration being 0.3 mm. The value recorded for the hardness is that of the maximum peak.

- 35 In addition, this pasty compound is, at a temperature of 23°C, in the form of a liquid fraction and of a solid fraction. In other words, the starting melting temperature of the pasty compound is less than 23°C. The liquid fraction of the pasty compound, measured at 23°C, represents 9 to 97% by weight of the compound. This liquid fraction at 23°C preferably represents between 15 and 85%, more preferably between 40 and 85%, by weight.

- 40 The liquid fraction by weight of the pasty compound at 23°C is equal to the ratio of the enthalpy of fusion consumed at 23°C to the enthalpy of fusion of the pasty compound.

- 45 The enthalpy of fusion of the pasty compound is the enthalpy consumed by the compound to change from the solid state to the liquid state. The pasty compound is “in the solid state” when the whole of its mass is in the crystalline solid form. The pasty compound is “in the liquid state” when the whole of its mass is in the liquid form.

The enthalpy of fusion of the pasty compound is equal to the area under the curve of the thermogram obtained using a differential scanning calorimeter (DSC), such as the calorimeter sold under the name MDSC 2920 by TA Instrument, with a rise in temperature of 5 or 10°C per minute, according to the  
5 ISO Standard 11357-3: 1999. The enthalpy of fusion of the pasty compound is the amount of energy necessary to change the compound from the solid state to the liquid state. It is expressed in J/g.

The enthalpy of fusion consumed at 23°C is the amount of energy absorbed by the sample to change from the solid state to the state which it exhibits at 23°C, composed of a liquid fraction and of a solid  
10 fraction.

The liquid fraction of the pasty compound measured at 32°C preferably represents from 30 to 100% by weight of the compound, preferably from 80 to 100%, more preferably from 90 to 100%, by weight of the compound. When the liquid fraction of the pasty compound measured at 32°C is equal to 100%,  
15 the temperature of the end of the melting range of the pasty compound is less than or equal to 32°C.

The liquid fraction of the pasty compound measured at 32°C is equal to the ratio of the enthalpy of fusion consumed at 32°C to the enthalpy of fusion of the pasty compound. The enthalpy of fusion consumed at 32°C is calculated in the same way as the enthalpy of fusion consumed at 23°C.  
20

The pasty compound is preferably chosen from synthetic compounds and compounds of plant origin. A pasty compound may be obtained by synthesis from starting materials of plant origin. Mention may be made especially, alone or as a mixture, of:

25 The pasty fatty substance is advantageously chosen from:

- lanolin, and derivatives thereof, such as lanolin alcohol, oxyethylenated lanolins, acetylated lanolin, lanolin esters such as isopropyl lanolate, and oxypropylenated lanolins,
- petroleum jelly, in particular the product whose INCI name is petrolatum and which is sold under the name Ultima White PET USP by the company Penreco,
- 30 - polyol ethers chosen from polyalkylene glycol pentaerythrityl ethers, fatty alcohol ethers of sugars, and mixtures thereof, polyethylene glycol pentaerythrityl ether comprising five oxyethylene (5 OE) units (CTFA name: PEG-5 Pentaerythrityl Ether), polypropylene glycol pentaerythrityl ether comprising five oxypropylene (5 OP) units (CTFA name: PEG-5 Pentaerythrityl Ether) and mixtures thereof, and more especially the mixture PEG-5  
35 Pentaerythrityl Ether, PPG-5 Pentaerythrityl Ether and soybean oil, sold under the name Lanolide by the company Vevy, which is a mixture in which the constituents are in a 46/46/8 weight ratio: 46% PEG-5 Pentaerythrityl Ether, 46% PPG-5 Pentaerythrityl Ether and 8% soybean oil;
- polymeric or non-polymeric silicone compounds;
- 40 - polymeric or non-polymeric fluoro compounds;
- vinyl polymers, especially:
  - olefin homopolymers and copolymers,
  - hydrogenated diene homopolymers and copolymers,
  - linear or branched oligomers, homopolymers or copolymers of alkyl (meth)acrylates  
45 preferably containing a C<sub>8</sub>-C<sub>30</sub> alkyl group,

- oligomers, homopolymers and copolymers of vinyl esters containing C<sub>8</sub>-C<sub>30</sub> alkyl groups, and/or
  - oligomers, homopolymers and copolymers of vinyl ethers containing C<sub>8</sub>-C<sub>30</sub> alkyl groups,
- 5 - liposoluble polyethers resulting from the polyetherification between one or more C<sub>2</sub>-C<sub>100</sub> and preferably C<sub>2</sub>-C<sub>50</sub> diols,
- esters (ie pasty fatty substance comprising at least one ester function); and/or
  - mixtures thereof.

10 Among the liposoluble polyethers that are particularly preferred are copolymers of ethylene oxide and/or of propylene oxide with C<sub>6</sub>-C<sub>30</sub> long-chain alkylene oxides, more preferably such that the weight ratio of the ethylene oxide and/or of the propylene oxide to the alkylene oxides in the copolymer is from 5:95 to 70:30. In this family, mention will be made especially of copolymers such

15 that the long-chain alkylene oxides are arranged in blocks having an average molecular weight from 1000 to 10 000, for example a polyoxyethylene/polydodecyl glycol block copolymer such as the ethers of dodecanediol (22 mol) and of polyethylene glycol (45 OE) sold under the brand name Elfacos ST9 by Akzo Nobel.

Preferably, the pasty fatty substance comprises at least one ester function. Among the ester pasty fatty substances, the following are especially preferred:

- esters of a glycerol oligomer, especially diglycerol esters, in particular condensates of adipic acid and of glycerol, for which some of the hydroxyl groups of the glycerols have reacted with a mixture of fatty acids such as stearic acid, capric acid, stearic acid and isostearic acid, and 12-hydroxystearic acid, preferably such as bis-diglycerol polyacyladipate-2 sold under the brand name Softisan 649 by the company Sasol,
- 25
- vinyl ester homopolymers containing C<sub>8</sub>-C<sub>30</sub> alkyl groups, such as polyvinyl laurate (sold especially under the reference Mexomer PP buy the company Chimex) and arachidyl propionate sold under the brand name Waxenol 801 by Alzo,
  - phytosterol esters,
- 30
- fatty acid triglycerides and derivatives thereof, for instance triglycerides of fatty acids, which are especially C<sub>10</sub>-C<sub>18</sub>, and partially or totally hydrogenated such as those sold under the reference Softisan 100 by the company Sasol,
  - pentaerythritol esters,
  - non-crosslinked polyesters resulting from polycondensation between a linear or branched C<sub>4</sub>-C<sub>50</sub> dicarboxylic acid or polycarboxylic acid and a C<sub>2</sub>-C<sub>50</sub> diol or polyol,
- 35
- aliphatic esters of an ester resulting from the esterification of an aliphatic hydroxycarboxylic acid ester with an aliphatic carboxylic acid. Preferably, the aliphatic carboxylic acid comprises from 4 to 30 and preferably from 8 to 30 carbon atoms. It is preferably chosen from hexanoic acid, heptanoic acid, octanoic acid, 2-ethylhexanoic acid, nonanoic acid, decanoic acid,
- 40
- undecanoic acid, dodecanoic acid, tridecanoic acid, tetradecanoic acid, pentadecanoic acid, hexadecanoic acid, hexyldecanoic acid, heptadecanoic acid, octadecanoic acid, isostearic acid, nonadecanoic acid, eicosanoic acid, isoarachidic acid, octyldodecanoic acid, heneicosanoic acid and docosanoic acid, and mixtures thereof. The aliphatic carboxylic acid is preferably branched.

45 The aliphatic hydroxycarboxylic acid ester is advantageously derived from a hydroxylated aliphatic

carboxylic acid containing from 2 to 40 carbon atoms, preferably from 10 to 34 carbon atoms and better still from 12 to 28 carbon atoms, and from 1 to 20 hydroxyl groups, preferably from 1 to 10 hydroxyl groups and better still from 1 to 6 hydroxyl groups. The aliphatic hydroxycarboxylic acid ester is chosen from:

- 5 a) partial or total esters of saturated linear mono-hydroxylated aliphatic monocarboxylic acids;
- b) partial or total esters of unsaturated monohydroxylated aliphatic monocarboxylic acids;
- c) partial or total esters of saturated monohydroxylated aliphatic polycarboxylic acids;
- d) partial or total esters of saturated poly-hydroxylated aliphatic polycarboxylic acids;
- 10 e) partial or total esters of C<sub>2</sub> to C<sub>16</sub> aliphatic polyols that have reacted with a monohydroxylated or polyhydroxylated aliphatic monocarboxylic or poly-carboxylic acid, and mixtures thereof,
  - esters of a diol dimer and of a diacid dimer, where appropriate esterified on their free alcohol or acid function(s) with acid or alcohol radicals, especially dimer dilinoleate esters; such esters may be chosen especially from the esters having the following INCI nomenclature: bis-behenyl/isostearyl/phytosteryl dimer dilinoleyl dimer dilinoleate (commercialised under the references Plandool G and Plandool G7), phytosteryl/isostearyl/stearyl/behenyl dimer dilinoleate (Plandool H or Plandool S), and mixtures thereof,
  - mango butter, such as the product sold under the reference Lipex 203 by the company Aarhuskarlshamn,
  - 20 - hydrogenated oils of plant origin such as hydrogenated castor oil isostearate (sold as (SALACOS HCIS (V-L) vendu par NISSHIN OIL), hydrogenated soybean oil, hydrogenated coconut oil, hydrogenated rape seed oil, mixtures of hydrogenated plant oils such as the mixture of hydrogenated soybean, coconut, palm and rape seed plant oil, for example the mixture sold under the reference Akogel® by the company Aarhuskarlshamn (INCI name: Hydrogenated Vegetable Oil).
  - shea butter, in particular the product whose INCI name is *Butyrospermum parkii* Butter, such as the product sold under the reference Sheasoft® by the company Aarhuskarlshamn,
  - hydrogenated rosinates, such as dilinoleyl dimers of hydrogenated rosinates (Lusplan DD-DHR or DD-DHR from Nippon Fine Chemical); and
  - 30 - mixtures thereof.

Preferably, the pasty fatty substance, is a hydrocarbon-based compound comprising at least one ester function.

- 35 Preferably, the pasty fatty substance is chosen from hydrogenated castor oil isostearate (SALACOS HCIS (V-L) vendu par NISSHIN OIL), bis-behenyl/isostearyl/phytosteryl dimer dilinoleyl dimer dilinoleate, bis-diglyceryl polyacyladipate-2, hydrogenated castor oil dimer dilinoleate (Risocast-DA-L®, Risocast DA-H®, sold by Kokyu Alcohol Kogyo), polyvinyl laurate, mango butter, shea butter, hydrogenated soybean oil, hydrogenated coconut oil and hydrogenated rape seed oil, and mixtures thereof.
- 40

### **Fillers**

A makeup and/or care composition according to the invention may also comprise one or more filler(s).

45

According to a first embodiment, the composition is free of fillers.

According to a second preferred embodiment, the composition comprises at least one or more filler(s).

- 5 The term “fillers” should be understood as meaning colorless or white, mineral or synthetic particles of any shape, which are insoluble in the medium of the composition, irrespective of the temperature at which the composition is manufactured. These fillers serve especially to modify the rheology or the texture of the composition.
- 10 The fillers may be mineral or organic and of any shape, platelet-shaped, spherical or oblong, irrespective of the crystallographic form (for example lamellar, cubic, hexagonal, orthorhombic, etc.). Mention may be made of talc, mica, silica, kaolin, clay, bentone, fumed silica particles, optionally hydrophilic- or hydrophobic-treated, polyamide (Nylon®) powder (Orgasol® from Atochem), poly-β-alanine powder and polyethylene powder, tetrafluoroethylene polymer (Teflon®) powder,
- 15 lauroyllysine, starch, boron nitride, hollow polymer microspheres such as polyvinylidene chloride/acrylonitrile microspheres, for instance Expancel® (Nobel Industrie), acrylic acid copolymer microspheres (Polytrap® from the company Dow Corning) and silicone resin microbeads (for example Tospearls® from Toshiba), precipitated calcium carbonate, magnesium carbonate, magnesium hydrogen carbonate, hydroxyapatite, hollow silica microspheres (Silica Beads® from
- 20 Maprecos), elastomeric polyorganosiloxane particles, glass or ceramic microcapsules, and metal soaps derived from organic carboxylic acids containing from 8 to 22 carbon atoms and preferably from 12 to 18 carbon atoms, for example zinc stearate, magnesium stearate, lithium stearate, zinc laurate or magnesium myristate, and mixtures thereof.
- 25 They may also be particles comprising a copolymer, said copolymer comprising trimethylol hexyl lactone. In particular, it may be a copolymer of hexamethylene diisocyanate/trimethylol hexyl lactone. Such particles are especially commercially available, for example, under the name Plastic Powder D-400® or Plastic Powder D-800® from the company Toshiki.
- 30 According to a preferred embodiment, the composition according to the invention comprises at least silica, preferably hydrophobic treated silica.

According to one preferred embodiment, the composition comprises at least one filler, and in particular chosen from fumed silicas that have optionally been hydrophilic- or hydrophobic-treated, preferably

35 hydrophobic-treated. Preferably, the composition comprises at least one filler known as Silica Dimethyl Silylate (according to the CTFA).

The hydrophobic groups may especially be dimethylsilyloxy or polydimethylsiloxane groups, which are especially obtained by treating fumed silica in the presence of polydimethylsiloxane or

40 dimethyldichlorosilane. Silicas thus treated are known as Silica Dimethyl Silylate according to the CTFA (6th edition, 1995). They are sold, for example, under the references Aerosil R972® and Aerosil R974® by the company Degussa, and Cab-O-Sil TS-610® and Cab-O-Sil TS-720® by the company Cabot.

45 According to a particular embodiment, the composition according to the invention is free of

“nanosilica”, preferably free of hydrophobic treated silica of INCI name Silica Dimethyl Silylate. The term “nanosilica” means silica having a nanometric size, or at least a fraction of nanometric size.

5 Preferably, the composition contains between 0.01% and 25% by weight and in particular between 0.1% and 20% by weight of fillers relative to the total weight of the composition.

10 Preferably, when the composition is in liquid form, it comprises at least one filler, preferably chosen from silica, kaolin, bentone, fumed silica particles, which have preferably been hydrophobic-treated, lauroyllysine and starch.

15 Preferably, a composition according to the invention may comprise a filler chosen from:

- organomodified clays, which are preferably clays treated with compounds chosen especially from quaternary amines and tertiary amines. Organomodified clays that may be mentioned include organomodified bentonites, such as the product sold under the name Bentone 34 by the company Rheox, and organomodified hectorites such as the products sold under the names Bentone 27 and Bentone 38 by the company Rheox,
- hydrophobic fumed silica. Such silicas are sold, for example, under the references Aerosil R812® by the company Degussa and Cab-O-Sil TS-530® by the company Cabot, and under the references Aerosil R972® and Aerosil R974® by the company Degussa and Cab-O-Sil TS-610® and Cab-O-Sil TS-720® by the company Cabot.

20 The filler may be present in a content ranging from 0.1% to 5% by weight and better still from 0.4% to 3% by weight relative to the total weight of the composition.

### 25 **Hydrophobic silica aerogel particles**

According to a preferred embodiment, the composition comprise may comprised at least hydrophobic silica aerogel particles. Such compound is a filler.

30 Preferably such compound is present when the composition is free of nanosilica and more particularly free of Silica Dimethyl Silylate.

35 Preferably the hydrophobic silica aerogel particles may be present in a content ranging from 0.1% to 15% by weight and better still from 0.1% to 10% by weight, relative to the total weight of the composition.

40 Preferably the hydrophobic silica aerogel particles may be present in a content ranging from 0.1% to 6% by weight and better still from 0.2% to 4% by weight, relative to the total weight of the composition.

According to this embodiment, the composition may comprise at least a additional filler, such as those described before for example.

45 Preferably, the composition according to the invention comprises at least Hydrophobic silica aerogel particles, when the composition is free of nanometric silica particules as described before, such as

## Silica Dimethyl Silylate.

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

5 They are generally synthesized via a sol-gel process in liquid medium and then dried, usually by extraction of a supercritical fluid, the one most commonly used being supercritical CO<sub>2</sub>. 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 processes are described in detail in Brinker C.J., and Scherer G.W., *Sol-Gel Science*:  
10 New York: Academic Press, 1990.

The hydrophobic silica aerogel particles that may be used in the present invention have a specific surface area per unit of mass ( $S_M$ ) ranging from 500 to 1500 m<sup>2</sup>/g, preferably from 600 to 1200 m<sup>2</sup>/g and better still from 600 to 800 m<sup>2</sup>/g, and a size expressed as the mean volume diameter (D[0.5]),  
15 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 that may be used in the present  
20 invention have a size expressed as the mean volume 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 of mass may be determined via the BET (Brunauer-Emmett-Teller) nitrogen absorption method described in the *Journal of the American Chemical Society*, vol. 60, page  
25 309, February 1938 and corresponding to the international standard ISO 5794/1 (appendix D). The BET specific surface area corresponds to the total specific surface area of the particles under consideration.

The size of the hydrophobic silica aerogel particles may be measured by static light scattering using a  
30 commercial granulometer such as the MasterSizer 2000 machine 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 especially described in the publication by Van de Hulst, H.C., "Light Scattering by Small Particles," Chapters 9 and 10, Wiley, New York, 1957.

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

40 The hydrophobic silica aerogel particles used in the present invention may advantageously have a tamped density  $\rho$  ranging from 0.04 g/cm<sup>3</sup> to 0.10 g/cm<sup>3</sup> and preferably from 0.05 g/cm<sup>3</sup> to 0.08 g/cm<sup>3</sup>.

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

40 g of powder are poured into a measuring cylinder; the measuring cylinder is then placed on a Stav 2003 machine from Stampf Volumeter; the measuring cylinder is then subjected to a series of 2500 packing motions (this operation is repeated until the difference in volume between two consecutive tests is less than 2%); the final volume  $V_f$  of packed powder is then measured directly on the measuring cylinder. The tamped density is determined by the ratio  $m/V_f$ , in this instance  $40/V_f$  ( $V_f$  being expressed in  $\text{cm}^3$  and  $m$  in g).

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

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

Preferably, the hydrophobic silica aerogel particles according to the invention have an oil-absorbing 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 oil-absorbing capacity measured at the wet point, noted  $W_p$ , corresponds to the amount of water that needs to be added to 100 g of particle 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 measuring the wet point, described below:

An amount  $m = 2$  g of powder is placed on a glass plate, and the oil (isononyl isononanoate) is then 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 a conglomerate of oil and powder has formed. At this point, the oil is added one drop at a time and the mixture is then triturated with the spatula. The addition of oil is stopped when a firm, smooth paste is obtained. This paste must be able to be spread on the glass plate without cracking or forming lumps. The volume  $V_s$  (expressed in ml) of oil used is then noted.

The oil uptake corresponds to the ratio  $V_s/m$ .

The hydrophobic silica aerogel particles that may be used according to the present invention are preferably of silylated silica type (INCI name: silica silylate).

The term "hydrophobic silica" means any silica whose surface is treated with silylating agents, for example halogenated silanes such as alkylchlorosilanes, siloxanes, in particular dimethylsiloxanes such as hexamethyldisiloxane, or silazanes, so as to functionalize the OH groups with silyl groups  $\text{Si-R}_n$ , for example trimethylsilyl groups.



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

5 Use will be made in particular of hydrophobic silica aerogels particles surface-modified with trimethylsilyl groups.

As hydrophobic silica aerogel particles 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  
10 company Dow Corning, the particles of which have a mean size of about 1000 microns and a specific surface area per unit of mass ranging from 600 to 800 m<sup>2</sup>/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, and ENOVA AEROGEL MT 1100.

15 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 a mean size ranging from 5-15 microns and a specific surface area per unit of mass ranging from 600 to 800 m<sup>2</sup>/g (oil uptake equal to 1080 ml/100 g).

20 Advantageously, the hollow particles in accordance with the invention are at least partly formed from hydrophobic silica aerogel particles, preferably those with a specific surface area per unit of mass ( $S_M$ ) ranging from 500 to 1500 m<sup>2</sup>/g and preferably from 600 to 1200 m<sup>2</sup>/g, and a size expressed as the mean volume diameter ( $D[0.5]$ ), ranging from 1 to 1500  $\mu\text{m}$ , better still from 1 to 1000  $\mu\text{m}$ , preferably  
25 from 1 to 100  $\mu\text{m}$ , in particular from 1 to 30  $\mu\text{m}$ , more preferably from 5 to 25  $\mu\text{m}$ , better still from 5 to 20  $\mu\text{m}$  and even better still from 5 to 15  $\mu\text{m}$ .

The use of hydrophobic silica aerogel particles, also advantageously makes it possible to improve the stability of the composition.

30

### **DEXTRIN ESTER**

The composition according to the invention comprise from 3.2% to 15% by weight of ester of dextrin, relative to the total weight of the composition, preferably an ester of dextrin and a fatty acid, preferably  
35 a C<sub>12</sub>-C<sub>24</sub> fatty acid.

Preferably, the dextrin ester is an ester of dextrine and a C<sub>14</sub>-C<sub>18</sub> fatty acid.

Preferably, the dextrin ester is dextrine palmitate, for example such as those commercialised under the  
40 references Rheopearl TL<sup>®</sup> or Rheopearl KL<sup>®</sup> by the society CHIBA FLOUR.

A composition according to the invention may comprise a content of dextrin ester ranging from 3.2% to 10% by weight, preferably from 3,5 to 10% by weight, relative to the total weight of the composition.

45

A composition according to the invention may comprise a content of dextrin ester ranging from 3.5% to 8% by weight and preferably from 6% to 8% by weight, relative to the total weight of the composition.

5 **DYESTUFFS**

The compositions according to the invention may preferably comprise at least one dyestuff (also known as a colouring agent), which may be chosen from water-soluble or liposoluble dyes, pigments and naces, and mixtures thereof.

10

The composition according to the invention may also comprise one or more dyestuffs chosen from water-soluble dyes and pulverulent dyestuffs, for instance pigments, naces and glitter flakes that are well known to those skilled in the art.

15

The dyestuffs may be present in the composition in a content ranging from 0.01% to 30% by weight, relative to the weight of the composition, preferably from 0.1% to 20% by weight.

The term "pigments" should be understood as meaning white or coloured, mineral or organic particles that are insoluble in an aqueous solution, which are intended to colour and/or opacify the resulting film.

20

The pigments may be present in a proportion of from 0.01% to 30% by weight, especially from 0.1% to 25% by weight and in particular from 0.2% to 15% by weight relative to the total weight of the cosmetic composition.

25

As mineral pigments that may be used in the invention, mention may be made of titanium oxide, zirconium oxide or cerium oxide, and also zinc oxide, iron oxide or chromium oxide, ferric blue, manganese violet, ultramarine blue and chromium hydrate.

30

It may also be a pigment having a structure that may be, for example, of sericite/brown iron oxide/titanium dioxide/silica type. Such a pigment is sold, for example, under the reference Coverleaf NS or JS by the company Chemicals and Catalysts, and has a contrast ratio in the region of 30.

35

The dyestuff may also comprise a pigment with a structure that may be, for example, of silica microsphere type containing iron oxide. An example of a pigment having this structure is the product sold by the company Miyoshi under the reference PC Ball PC-LL-100 P, this pigment consisting of silica microspheres containing yellow iron oxide.

40

Among the organic pigments that may be used in the invention, mention may be made of carbon black, pigments of D&C type, lakes based on cochineal carmine or on barium, strontium, calcium or aluminium, or alternatively the diketopyrrolopyrroles (DPP) described in documents EP-A-542 669, EP-A-787 730, EP-A-787 731 and WO-A-96/08537.

45

The term "naces" should be understood as meaning coloured particles of any form, which may or may not be iridescent, especially produced by certain molluscs in their shell, or alternatively synthesized, and which have a colour effect via optical interference.

The nacres may be chosen from nacreous pigments such as titanium mica coated with an iron oxide, mica coated with bismuth oxychloride, titanium mica coated with chromium oxide, titanium mica coated with an organic dye and also nacreous pigments based on bismuth oxychloride. They may also be mica particles at the surface of which are superposed at least two successive layers of metal oxides and/or of organic dyestuffs.

Examples of nacres that may also be mentioned include natural mica coated with titanium oxide, with iron oxide, with natural pigment or with bismuth oxychloride.

Among the nacres available on the market, mention may be made of the nacres Timica, Flamenco and Duochrome (based on mica) sold by the company Engelhard, the Timiron nacres sold by the company Merck, the Prestige mica-based nacres, sold by the company Eckart, and the Sunshine synthetic mica-based nacres, sold by the company Sun Chemical.

The nacres may more particularly have a yellow, pink, red, bronze, orange, brown, gold and/or coppery colour or tint.

As illustrations of nacres that may be used in the context of the present invention, mention may be made especially of the gold-coloured nacres sold especially by the company Engelhard under the name Brilliant gold 212G (Timica), Gold 222C (Cloisonne), Sparkle gold (Timica), Gold 4504 (Chromalite) and Monarch gold 233X (Cloisonne); the bronze nacres sold especially by the company Merck under the name Bronze fine (17384) (Colorona) and Bronze (17353) (Colorona) and by the company Engelhard under the name Super bronze (Cloisonne); the orange nacres sold especially by the company Engelhard under the name Orange 363C (Cloisonne) and Orange MCR 101 (Cosmica) and by the company Merck under the name Passion orange (Colorona) and Matte orange (17449) (Microna); the brown nacres sold especially by the company Engelhard under the name Nu-antique copper 340XB (Cloisonne) and Brown CL4509 (Chromalite); the nacres with a copper tint sold especially by the company Engelhard under the name Copper 340A (Timica); the nacres with a red tint sold especially by the company Merck under the name Sienna fine (17386) (Colorona); the nacres with a yellow tint sold especially by the company Engelhard under the name Yellow (4502) (Chromalite); the red nacres with a gold tint sold especially by the company Engelhard under the name Sunstone G012 (Gemtone); the pink nacres sold especially by the company Engelhard under the name Tan opale G005 (Gemtone); the black nacres with a gold tint sold especially by the company Engelhard under the name Nu antique bronze 240 AB (Timica), the blue nacres sold especially by the company Merck under the name Matte blue (17433) (Microna), the white nacres with a silvery tint sold especially by the company Merck under the name Xirona Silver, and the golden-green pink-orange nacres sold especially by the company Merck under the name Indian summer (Xirona), and mixtures thereof.

The term "dyes" should be understood as meaning compounds that are generally organic, which are soluble in fatty substances such as oils or in an aqueous-alcoholic phase.

The cosmetic composition according to the invention may also comprise water-soluble or liposoluble dyes. The liposoluble dyes are, for example, Sudan red, DC Red 17, DC Green 6,  $\beta$ -carotene, Sudan brown, DC Yellow 11, DC Violet 2, DC Orange 5 and quinoline yellow. The water-soluble dyes are,

for example, beetroot juice or methylene blue.

The cosmetic composition according to the invention may also contain at least one material with a specific optical effect as dyestuff.

This effect is different from a simple conventional hue effect, i.e. a unified and stabilized effect as produced by standard dyestuffs, for instance monochromatic pigments. For the purposes of the invention, the term "stabilized" means lacking an effect of variability of the colour as a function of the angle of observation or alternatively in response to a temperature change.

For example, this material may be chosen from particles with a metallic tint, goniochromatic coloring agents, diffracting pigments, thermochromic agents, optical brighteners, and also fibres, especially interference fibres. Needless to say, these various materials may be combined so as to afford the simultaneous manifestation of two effects, or even of a novel effect in accordance with the invention.

### **Aqueous phase**

A composition according to the invention may also comprise an aqueous phase, which may represent 0.01% to 50% by weight, especially 0.1% to 30% by weight or even 1% to 20% by weight relative to the total weight of the composition. This aqueous phase may be formed essentially from water, or may comprise a mixture of water and of water-miscible solvent (miscibility in water of greater than 50% by weight at 25°C) chosen especially from monoalcohols containing 1 to 5 carbon atoms such as ethanol, isopropanol, glycols containing 2 to 8 carbon atoms such as propylene glycol, ethylene glycol, 1,3-butylene glycol, dipropylene glycol, C<sub>3</sub>-C<sub>4</sub> ketones and C<sub>2</sub>-C<sub>4</sub> aldehydes, and mixtures thereof.

However, as stated above, advantageously, the compositions according to the invention are anhydrous.

The term "anhydrous" especially means that water is preferably not deliberately added to the compositions, but may be present in trace amounts in the various compounds used in the compositions.

### **Additive(s)**

A makeup and/or care composition according to the invention may also comprise at least one agent usually used in cosmetics, chosen, for example, from reducing agents, thickeners, film-forming agents that are especially hydrophobic, silicone elastomers, softeners, antifoams, moisturizers, UV-screening agents, ceramides; cosmetic active agents; peptizers, fragrances, proteins, vitamins, propellants, hydrophilic or lipophilic, film-forming or non-film-forming polymers; lipophilic or hydrophilic gelling agents. The above additives are generally present in an amount for each of them of between 0.01% and 10% by weight relative to the total weight of the composition. Needless to say, a person skilled in the art will take care to select the constituents of the composition such that the advantageous properties associated with the invention are not, or are not substantially, adversely affected.

### **Usual additional cosmetic ingredients**

A composition used according to the invention may also comprise any usual cosmetic ingredient,

which may be chosen especially from antioxidants, film-forming polymers, fragrances, preserving agents, emollients, moisturizers, neutralizers, sunscreens, sweeteners, vitamins, free-radical scavengers and sequestrants, and mixtures thereof.

- 5 The amounts of each of these various ingredients are those conventionally used in the fields under consideration, and range, for example, from 0.01% to 10% by weight relative to the total weight of the composition.

Needless to say, a person skilled in the art will take care to select the optional additional ingredients and/or the amount thereof such that the advantageous properties of the composition according to the  
10 invention are not, or are not substantially, adversely affected by the envisaged addition.

A composition in accordance with the invention is in liquid form at room temperature. A composition according to the invention may constitute a gloss for the lips, a body makeup product, a facial or body  
15 care product or an antison product.

As illustrations of liquid formulations, mention may be made especially of lip glosses.

As stated previously, the composition according to the invention is homogeneous and stable and gives  
20 access to a deposit on the skin or the lips that has good cosmetic properties, in particular in terms of gloss, comfort (thickness deposit) and absence of transfer of the deposit. In particular, compositions according to the invention enable forming a deposit exhibits no color transfer, in particular on a cup while drinking for a lip product, and when the composition contains one or more colouring agent(s).

25 More particularly, a composition according to the invention is "stable", in particular no phase separation, and no sedimentation of the pigments and/or the naces after 24hours at room temperature and at 50°C. More preferably, the composition according to the invention remains stable after seven days at 50°C.

30 In the description and in the examples that follow, unless otherwise mentioned, the percentages are weight percentages and the ranges of values given in the form "between... and..." include the stated lower and upper limits.

Unless otherwise mentioned, the values in the example below are expressed as % by weight relative to  
35 the total weight of the composition.

## EXAMPLES

The examples below are presented as non-limiting illustrations of the field of the invention.

40

### **Examples 1 to 5 of cosmetic formulae of liquid lip product type (gloss)**

The five liquid makeup formulas having the following composition were prepared (the percentages indicated are weight percentages).

45

Composition 1 illustrate the invention. Compositions 2 to 5 are comparative compositions not belonging to the invention.

<b>INCI US NAME and Commercial references</b>	<b>Composition 1 according to the invention (% in weight)</b>	<b>Comparative composition 2 not belonging to the invention (% in weight)</b>	<b>Comparative composition 3 not belonging to the invention (% in weight)</b>	<b>Comparative composition 4 not belonging to the invention (% in weight)</b>	<b>Comparative composition 5 not belonging to the invention (% in weight)</b>
SILICA DIMETHYL SILYLATE (Aerosil R972 from Evonik Degussa)	1	1	1	1	3.68
Red 7	0.24	0.24	0.24	0.24	0.24
Iron Oxide	0.07	0.07	0.07	0.07	0.07
PETROLATUM (ULTIMA WHITE PET USP from Calumet Specialty)	7	7	7	7	9.77
DIISOSTEARYL MALATE	11.19	11.19	11.19	11.19	7.35
MICA (and) IRON OXIDES	1.5	1.5	1.5	1.5	1.5
DEXTRIN PALMITATE (RHEOPEARL KL2 – OR from Chiba Flour Milling)	7	7	7	7	4.77
HYDROGENATED POLYISOBUTENE (Parleam V from Nof)	41	41	41	41	27.93
Dimethicone (XIAMETER PMX-200 SILICONE FLUID 350CS from Dow Corning)	12				18
Dimethicone (XIAMETER PMX-200 SILICONE FLUID 100CS from Dow Corning)	12				18
Trimethylsiloxyphenyl dimethicone (Belsil PDM 1000 from Wacker)		24			

DIPHENYL DIMETHICONE (KF- 54 from Shin Etsut)			24		
TRIMETHYL PENTAPHENYL TRISILOXANE (Dow Corning PH- 1555 HRI cosmetic fluid from Dow corning)				24	
ISODODECANE	7	7	7	7	3
TOTAL	100	100	100	100	100

### **Preparation process**

The compositions were obtained according to the following protocol:

5

In a first stage, the fillers, pigments and/or active agents of the fatty phase were ground in a three-roll mill in part of the oily phase (diisostearyl malate). The rest of the liposoluble ingredients were then mixed in the heating pan at a temperature of about 100°C with Rayneri blending until a homogeneous mixture was obtained. The ground pigmentary material was then incorporated into the mixture, along with the naces, if present, and stirring was continued until the mixture was homogeneous.

10

The mixture has then been cooled down while slowly mixing, and was dropped in bulk at 40°C. The composition is then left at room temperature for 24 hours.

### 15 **Evaluation**

The viscosity of the compositions at 25°C was evaluated according to the protocol described previously.

20

The compositions obtained were placed for 72 hours at 24°C and at 47°C in order to evaluate the stability of the composition. More particularly, it is observed if the composition is stable, ie remain homogenous (no phase separation and/or no sedimentation of the pigments).

25

The compositions were then applied to the lips in order to evaluate the application properties and the characteristics of the deposit obtained (Shine, Color Transfer resistance, and tack).

30

The tacky nature of a deposit made on the lips with the compositions to be evaluated was evaluated 5 minutes after application by rubbing the upper and the lower lips together and the tack was assessed by the person on removal of her upper and lower lips. The color transfer resistance is evaluated by applying the lips on a white cup as while drinking 5 minutes after applying the composition on the lips.

PROPERTIES	Composition 1 according to the invention	Comparative composition 2 not belonging to the invention (% in weight)	Comparative composition 3 not belonging to the invention (% in weight)	Comparative composition 4 not belonging to the invention (% in weight)	Comparative composition 5 not belonging to the invention (% in weight)
Viscosity (Pa.s)	3.6	5.3	4.6	3.4	2.0
Stability after 72 hours at 24°C	Yes	Yes	Yes	Yes	Yes
Stability after 72 hours at 47°C	Yes	Yes	Yes	Yes	Yes
Application properties (glide and easiness to apply)	Good	Not Good (heavy, no good glide)	Good	Good	Not Good (heavy, no good glide)
Shine of the deposit	Good	Moderately shiny	Moderately shiny	Good	Moderately shiny
Tackiness of the deposit while drying	Good= sparingly tacky	Tacky	sparingly tacky	sparingly tacky	sparingly tacky
Color Transfer resistance	Good	Not Good	Not Good	Not Good	Not Good

Formula 1 according to the invention that comprises 24 % non-volatile dimethicone oil has good application properties (smooth and good glide) and has a good color transfer resistance (almost no colour on the cup). The deposit made with Formula 1 is sparingly tacky and has a good level of shine.

- 5 On contrary, the deposits made with the comparatives compositions 2 to 4 comprising no non-volatile dimethicone, but comprising 24% of non-volatile phenyl dimethicone oils have not a good color transfer resistance.

- 10 At last, the deposit made with the comparative composition 5 comprising more than 30% non-volatile dimethicone (36%), does also not have a good color transfer resistance.



## CLAIMS

1. Liquid cosmetic composition for making up and/or caring for the skin and/or the lips, comprising, in a physiologically acceptable medium, at least one fatty phase comprising:
  - 5 - from 20% to 30% total weight of non-volatile non-phenylated silicone oil(s) having at least a dimethicone part, or mixture thereof, relative to the total weight of the composition,
  - from 10% to 75% by weight of non-volatile hydrocarbonated apolar oil(s), relative to the total weight of the composition, and
  - 10 - from 3,2% to 15% by weight of ester of dextrin, relative to the total weight of the composition.
2. Composition according to any one of the preceding claims, in which said non-volatile hydrocarbonated apolar oil is chosen from polybutene, hydrogenated polybutene,  
15 polyisobutene, hydrogenated polyisobutene, polydecene, hydrogenated polydecene, and mixture thereof.
3. Composition according to any one of the preceding claims, in which the non-volatile hydrocarbonated apolar oil(s) is present in the composition in a content ranging from 20% to  
20 60 % by total weight, and preferably ranging from 30% to 50% by total weight relative to the total weight of the composition.
4. Composition according to any of the preceding claims, in which the non-volatile non-phenylated silicone oil having at least a dimethicone part is chosen from:
  - 25 - non-volatile polydimethylsiloxanes (PDMS),
  - PDMSs comprising alkyl or alkoxy groups, which are pendent and/or at the end of the silicone chain, these groups each containing from 2 to 24 carbon atoms,
  - PDMSs comprising aliphatic and/or aromatic groups, or functional groups such as hydroxyl, thiol and/or amine groups,
  - 30 - polyalkylmethylsiloxanes optionally substituted with a fluorinated group, such as polymethyltrifluoropropyldimethylsiloxanes,
  - polyalkylmethylsiloxanes substituted with functional groups such as hydroxyl, thiol and/or amine groups,
  - polysiloxanes modified with fatty acids, fatty alcohols or polyoxyalkylenes, and  
35 - mixtures thereof.
5. Composition according to any of the preceding claims, in which said non-volatile non-phenylated dimethicone oil is preferably chosen from dimethicone oils, preferably chosen from polydimethylsiloxanes and/or alkyl dimethicones, and mixture thereof.  
40
6. Composition according to any of the preceding claims, comprising a mixture of non-volatile dimethicone oils, preferably, a mixture of at least two different polydimethylsiloxanes.
7. Composition according to the preceding claim, in which the weight ratio of at least two non-  
45 volatile polydimethylsiloxanes, is comprised between 0.5 and 2.

8. Composition according to any of the preceding claims, comprising from 22% to 28% by total weight of non-volatile non-phenylated silicon oil having at least a dimethicone part, relative to the total weight of the said composition.
- 5
9. Composition according to any one of the preceding claims, in which the weight ratio of the non-volatile apolar hydrocarbonated oil(s) to the non-volatile silicon oil(s), preferably to the non-volatile non-phenylated silicon oil(s) having at least a dimethicone part, is between 0,3 and 4, preferably between 0.5 and 3.3, preferably between 1 and 3, and even more preferably between 1.5 and 2.5.
- 10
10. Composition according to any one of the preceding claims, comprising from 3,2% to 10% by weight of ester of dextrin, relative to the total weight of the composition.
- 15
11. Composition according to any one of the preceding claims, in which the said composition also comprises at least one additional compound, preferably chosen from a hydrocarbonated polar oil, and/or an additional non-volatile silicone oil, different from said non-phenylated silicon oil having at least a dimethicone part, and/or a volatile oil, and/or a fatty pasty compound, and/or a filler, and/or a colouring agent, and/or mixture thereof.
- 20
12. Composition according to any one of the preceding claims, in which the said composition comprises at least a filler such as silica and/or hydrophobic silica.
- 25
13. Composition according to any one of the preceding claims, in which the said composition also comprises hydrophobic silica aerogel particles, preferably hydrophobic silica aerogels particles surface-modified with trimethylsilyl groups, preferably in a content ranging from 0.1% to 15% by weight, better from 0.1% to 10% by weight, better 0.1% to 6% by weight and better still from 0.2% to 4% by weight, relative to the total weight of the composition.
- 30
14. Composition according to any one of the preceding claims, in which the said composition comprises a volatile hydrocarbonated oil, preferably isododecane.
- 35
15. Composition according to any one of the preceding claims, in which the said composition is a lip product such as a lipcare product, or a lip gloss.
16. Process for making up and/or caring for the skin and/or the lips, comprising, applying at least a composition according to any one of the preceding claims on the skin and/or the lips.
17. Process for making up the lips comprising applying said composition on the lips.

INTERNATIONAL SEARCH REPORT

International application No  
PCT/JP2012/066454

A. CLASSIFICATION OF SUBJECT MATTER  
 INV. A61Q1/04 A61Q19/00 A61K8/31 A61K8/73 A61K8/81  
 A61K8/891  
 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)  
 A61Q A61K

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, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 468 663 A2 (SHISEIDO CO LTD [JP]) 20 October 2004 (2004-10-20) examples 3-2, 3-6, 3-7; table 10 -----	1,3,6, 8-11,16
X	JP 2007 238578 A (KOSE CORP) 20 September 2007 (2007-09-20) example 12 -----	1-17
A	EP 2 298 273 A1 (SHISEIDO CO LTD [JP]) 23 March 2011 (2011-03-23) the whole document -----	1-17
A	FR 2 840 527 A1 (KOSE CORP [JP]) 12 December 2003 (2003-12-12) example 11 -----	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  16 April 2013	Date of mailing of the international search report  24/04/2013
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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  Diebold, Alain
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# INTERNATIONAL SEARCH REPORT

International application No

PCT/JP2012/066454

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1 958 612 A1 (NISSHIN OILLIO GROUP LTD [JP]; JO COSMETICS CO LTD [JP]) 20 August 2008 (2008-08-20) example 21  -----	1-17

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/JP2012/066454

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