Cosmetic makeup and/or care composition comprising at least one ester wax and free of apolar hydrocarbon-based oil

The present invention relates to a cosmetic makeup and/or care composition comprising at least one fatty phase comprising at least one specific ester wax and a colouring agent, the composition comprising less than 2% or even less than 1% by weight of apolar oil relative to the weight of the composition, or even being totally free of apolar oil, and the composition comprising less than 10% by weight of water relative to the total weight of the composition. The composition according to the invention especially has improved gloss and gloss fastness properties, and also low migration when it is applied to the skin or the lips.
The present invention relates to a cosmetic makeup and/or care composition, especially for the lips.

In the cosmetic field, the development of formulations that have both good properties in terms of application and comfort, and satisfactory properties in terms of staying power, especially gloss fastness, and migration-resistance properties, is an ongoing objective.

The compounds conventionally used in compositions of this type for affording gloss are viscous oils, for instance polybutenes or polyisobutenes.

Consequently, there remains at the present time a need for a lip makeup and/or care composition that is acceptable from a sensory viewpoint and that has satisfactory gloss, while at the same time undergoing substantially no migration.

Specifically, consumers are constantly in search of a glossy product, which is comfortable to wear throughout the day, and which migrates little or not at all into the folds of the skin around the lips or the eyes such as the wrinkles and fine lines. The reason for this is that when the product migrates into the fine lines, they are accentuated and, in the case of a lipstick, for example, the contour of the lips does not stay sharp.

The inventors have found, unexpectedly, that the use of at least one ester wax in a composition free of apolar oil advantageously makes it possible to obtain compositions that are satisfactory in these terms.

Furthermore, the inventors have found that the use of ester waxes in a composition free of apolar oil, especially in products intended to be applied to the
The term "solid" characterizes the state of the lips, efficiently prevents the migration of the applied composition and is particularly advantageous especially in terms of softness and melting on application. In addition, the compositions according to the invention have improved gloss and gloss fastness properties, and are satisfactory in terms of migration resistance.

Finally, the compositions according to the invention have the advantage of affording a uniform deposit, especially in terms of colour, the pigments being well dispersed in the composition.

Furthermore, although it is common for glossy compositions to have a more or less oily nature, when they are applied to the skin or the lips, for example, which the user may find unpleasant, the compositions according to the invention make it possible to overcome this drawback of the compositions of the prior art while at the same time having good gloss and gloss fastness properties.

Moreover, the compositions according to the invention are also very satisfactory in terms of ease of application (glidance and cake erosion) and comfort.

More specifically, the present invention relates to a cosmetic makeup and/or care composition comprising less than 10% by weight of water, at least one colouring agent, at least one fatty phase comprising at least one particular ester wax, the composition comprising less than 2% or even less than 1% by weight of apolar oil relative to the weight of the composition, or even being totally free of apolar oil.

Preferably, the composition according to the invention is solid.

The term "solid" characterizes the state of the
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composition at room temperature (25°C) and at atmospheric pressure (760 mmHg).

Preferably, the composition according to the invention has, when it is solid, a hardness of between 30 and 300 g, or even from 50 to 200 g.

Protocol for measuring the shear:

The measurement is performed according to the following protocol:

A sample of the composition under consideration is hot-cast into a stick mould 11.06 mm in diameter. The mould is then cooled in a freezer for about one hour. The stick of lipstick is then stored at 20°C.

The hardness of the samples is measured after an interval of 24 hours.

The hardness of the samples of compositions of the invention, expressed in grams, is measured using a DFGS2 tensile testing machine sold by the company Indelco-Chatillon.

The hardness corresponds to the maximum shear force exerted by a rigid tungsten wire 250 µm in diameter, advancing at a rate of 100 mm/minute.

The technique described above is usually referred to as the "cheese wire" method.

The composition according to the invention comprises less than 10% by weight of water relative to the total weight of the composition. Preferably, the composition according to the invention comprises less than 4% by weight of water relative to the total weight of the composition. Even more preferably, the composition is
totally anhydrous.

According to another aspect, the present invention relates to a makeup process in which a product as defined above is applied to the lips.

**Fatty phase:**

The composition according to the invention comprises at least one fatty phase, and in particular at least one solid fatty substance chosen from ester waxes.

**Wax (es):**

The waxes under consideration in the context of the present invention are generally lipophilic compounds that are solid at room temperature (25°C), with a solid/liquid reversible change of state, having a melting point of greater than or equal to 30°C, which may be up to 200°C and in particular up to 120°C.

In particular, the waxes that are suitable for the invention may have a melting point of greater than or equal to 45°C and in particular greater than or equal to 55°C.

For the purposes of the invention, the melting point corresponds to the temperature of the most endothermic peak observed by thermal analysis (DSC) as described in ISO standard 11357-3; 1999. The melting point of the wax may be measured using a differential scanning calorimeter (DSC), for example the calorimeter sold under the name MDSC 2920 by the company TA Instruments.

The measuring protocol is as follows:

A sample of 5 mg of wax (or of pasty substance, depending on the case) placed in a crucible is
subjected to a first temperature rise ranging from -20 °C to 100 °C, at a heating rate of 10 °C/minute, it is then cooled from 100 °C to -20 °C at a cooling rate of 10 °C/minute and is finally subjected to a second temperature increase ranging from -20 °C to 100 °C at a heating rate of 5 °C/minute. During the second temperature increase, the variation of the difference in power absorbed by the empty crucible and by the crucible containing the sample of wax (or of pasty substance) is measured as a function of the temperature. The melting point of the compound is the temperature value corresponding to the top of the peak of the curve representing the variation in the difference in absorbed power as a function of the temperature.

The waxes that may be used in the compositions according to the invention are chosen from waxes that are solid at room temperature, of animal, plant, mineral or synthetic origin, and mixtures thereof.

The composition according to the invention comprises at least one particular ester wax.

According to the invention, the term "ester wax" means a wax comprising at least one ester function.

In particular, the term "ester wax" means a wax constituted solely of ester wax rather than a mixture that also comprises other types of wax that are not ester waxes, such as beeswax, synthetic beeswax or candelilla wax, or alternatively, for example, Kester Wax K 82 P® ((C_{20}-C_{40}) alkyl (hydroxystearyloxy) - stearate), which are not ester waxes within the meaning of the present invention.

The ester wax according to the invention may be chosen from the waxes obtained by hydrogenation of castor oil
esterified with cetyl alcohol, sold under the names Phytowax ricin 16L64® and 22L73® by the company Sophim. Such waxes are described in patent application FR-A-2 792 190.

As ester wax that may be used, mention may also be made of bis (1,1,1-trimethylolpropane) tetrastearate sold under the name Hest 2T-4S® by the company Heterene.

The term "ester wax" also means waxes of formula RiCOOR₂ in which R₁ and R₂ represent linear, branched or cyclic aliphatic chains in which the number of atoms ranges from 10 to 50, which may contain a heteroatom such as O, N or P and whose melting point ranges from 25 to 120 °C. In particular, it is possible to use the C₂₀-C₄₀ alkyl stearate sold under the name Kester Wax K82H by the company Kester Keunen.

Preferably, the composition may comprise a content of ester wax ranging from 2% to 13% by weight and in particular may contain from 2% to 10% by weight relative to the total weight of the composition.

According to a first advantageous embodiment, the composition comprises only one ester wax.

According to a second advantageous embodiment, the composition according to the invention comprises at least one second wax.

Preferably, the second wax present in the composition is chosen from apolar waxes and ester waxes (different from the one already present in the composition).

In particular, according to this embodiment, the composition does not comprise any wax constituted of a mixture of waxes, in particular of waxes of different polarities, for instance beeswax or candelilla wax.
Preferably, the second wax is an apolar wax.

For the purposes of the present invention, the term "apolar wax" means a wax whose solubility parameter at 25°C as defined below, $\delta_a$, is equal to 0 (J/cm$^3$)$^{1/2}$. Apolar waxes are, in particular, hydrocarbon-based waxes constituted solely of carbon and hydrogen atoms and free of heteroatoms such as N, O, Si and P.

In particular, the term "apolar wax" means a wax constituted solely of apolar wax, rather than a mixture also comprising other types of wax that are not apolar waxes.

As illustrations of apolar waxes that are suitable for use in the invention, mention may be made especially of hydrocarbon-based waxes, for instance microcrystalline waxes, paraffin waxes, ozokerites and polyethylene waxes.

Polyethylene waxes that may be mentioned include Performalene 500-L Polyethylene and Performalene 400 Polyethylene sold by New Phase Technologies.

An ozokerite that may be mentioned is Ozokerite Wax SP 1020 P.

As microcrystalline waxes that may be used, mention may be made of Multiwax W 445® sold by the company Sonneborn, and Microwax HW® and Base Wax 30540® sold by the company Paramelt.

As microwaxes that may be used in the compositions according to the invention as apolar wax, mention may be made especially of polyethylene microwaxes such as those sold under the names Micropoly 200®, 220®, 220L® and 250S® by the company Micro Powders.
The fact that the composition comprises two waxes of different polarities especially allows greater freedom in terms of formulation and in particular as regards the choice of the liquid fatty phase, i.e. of the oils present in the composition, while at the same time obtaining good cosmetic properties. In particular, this makes it possible to use a mixture of oils of different polarities.

According to one preferred embodiment, the composition according to the invention comprises less than 2% by weight or even less than 1% by weight of polyethylene wax, relative to the total weight of the composition, or alternatively is totally free of polyethylene wax.

Preferably, the composition may comprise a content of apolar wax ranging from 2% to 13% by weight and in particular may contain from 2% to 10% by weight relative to the total weight of the composition.

According to one advantageous embodiment, when the composition comprises at least one apolar wax, the apolar wax/ester wax weight ratio in the composition ranges from 0.5 to 5 and preferably from 0.8 to 3.

According to another embodiment, the second wax is neither specifically an apolar wax nor specifically an ester wax as defined above.

The term "specifically" means a wax which, for example in the case of the ester wax, is not at all an ester wax, or else a wax that is a mixture of an ester wax and of at least one other wax that is not an ester wax.

Such an additional wax may thus advantageously be a mixture of different waxes, and in particular a mixture of ester wax and of apolar wax.
Additional waxes that may be used in particular include: beeswax, lanolin wax, Chinese insect waxes, rice bran wax, carnauba wax, candelilla wax, ouricury wax, esparto grass wax, berry wax, shellac wax, Japan wax and sumach wax; montan wax, orange wax and lemon wax, hydrogenated castor oil, or alternatively silicone waxes \((C_{30-45} \text{ alkyl dimethicone})\) and fluoro waxes.

According to a first preferred embodiment, the composition according to the invention does not comprise more than two different waxes, and advantageously it comprises only two different waxes, the second wax preferably being an apolar wax as defined previously.

Limiting the number of waxes especially makes it possible to reduce the problems of stability of the composition especially over time, in particular when it is in stick form, and in particular to avoid recrystallization phenomena at the surface of the composition.

According to another embodiment of the invention, the composition comprises, besides the ester wax and the second wax, at least one additional third wax.

The additional third wax may be an ester wax, an apolar wax, or alternatively a wax that is neither specifically an ester wax nor specifically an apolar wax within the meaning of the present invention.

The composition according to the invention may comprise a total content of waxes ranging from 0.1% to 30% by weight and in particular may contain from 0.5% to 15%, more particularly from 1% to 13% or more preferably from 8% to 13% by weight relative to the total weight of the composition.
Preferably, when the composition according to the invention is in solid form, it comprises a total content of waxes ranging from 8% to 13%.

**Pasty compounds**

The composition according to the invention may comprise, besides the waxes, another solid fatty substance such as at least one pasty compound.

For the purposes of the present invention, the term "pasty" is intended to denote a lipophilic fatty compound that undergoes a reversible solid/liquid change of state and that comprises, at a temperature of 23°C, a liquid fraction and a solid fraction.

In other words, the starting melting point of the pasty compound is less than 23°C. The liquid fraction of the pasty compound measured at 23°C may represent 9% to 97% by weight of the compound. This liquid fraction at 23°C preferably represents between 15% and 85% and more preferably between 40% and 85% by weight.

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

The heat of fusion of the pasty compound is the heat consumed by the compound to change from the solid state to the liquid state. The pasty compound is said to be in the solid state when all of its mass is in solid form. The pasty compound is said to be in the liquid state when all of its mass is in liquid form.

The heat 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 the company TA Instrument, with a temperature rise of 5 or 10°C per minute, according to standard ISO 11357-3:1999. The heat of fusion of the pasty compound is the amount of energy required to make the compound change from the solid state to the liquid state. It is expressed in J/g.

The heat of fusion consumed at 23°C is the amount of energy absorbed by the sample to change from the solid state to the state that it has at 23°C, consisting of a liquid fraction and a solid 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 50% to 100% and more preferably from 60% to 100% by weight of the compound. When the liquid fraction of the pasty compound measured at 32°C is equal to 100%, 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 heat of fusion consumed at 32°C to the heat of fusion of the pasty compound. The heat of fusion consumed at 32°C is calculated in the same manner as the heat of fusion consumed at 23°C.

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.

The pasty compound is advantageously chosen from:
- lanolin and derivatives thereof,
- polymer or non-polymer silicone compounds,
polymer or non-polymer fluoro compounds,
- vinyl polymers, especially:
  • olefin homopolymers
  • olefin copolymers
  • hydrogenated diene homopolymers and copolymers
  • linear or branched oligomers, which are homopolymers or copolymers of alkyl (meth)acrylates preferably containing a \( C_8-C_{30} \) alkyl group
  • oligomers, which are homopolymers and copolymers of vinyl esters containing \( C_8-C_{30} \) alkyl groups
  • oligomers, which are homopolymers and copolymers of vinyl ethers containing \( C_8-C_{30} \) alkyl groups,
- liposoluble polyethers resulting from the polyetherification between one or more \( C_2-C_{100} \) and preferably \( C_2-C_{50} \) diols,
- esters,
- and mixtures thereof.

Among the esters that are especially preferred are:
- 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, especially such as the product sold under the brand name Softisan 649 by the company Sasol,
- arachidyl propionate sold under the brand name Waxenol 801 by Alzo,
- phytosterol esters,
- fatty acid triglycerides and derivatives thereof,
- pentaerythritol esters,
- non-crosslinked polyesters resulting from polycondensation between a linear or branched \( C_4-C_{50} \) dicarboxylic acid or polycarboxylic acid and a \( C_2-C_{50} \) diol or polyol,
- aliphatic esters of an ester resulting from the
esterification of an aliphatic hydroxycarboxylic acid with an aliphatic carboxylic acid,
- polyesters resulting from the esterification, with a polycarboxylic acid, of an ester of an aliphatic hydroxycarboxylic acid, the said ester comprising at least two hydroxyl groups, such as the products Risocast DA-H® and Risocast DA-L®,
- 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, such as Plandool-G,
- and mixtures thereof.

Among the pasty compounds of plant origin, a mixture of soybean sterols and of oxyethylenated (5 EO) oxypropylenated (5 PO) pentaerythritol, sold under the reference Lanolide by the company Vevy, will preferably be chosen.

Preferably, the composition comprises a total content of pasty fatty substances ranging from 0.5% to 50% by weight, preferably from 1% to 40% by weight and better still from 5% to 30% by weight relative to the weight of the composition.

Liquid fatty phase:

Preferably, the fatty phase of the composition according to the invention in particular comprises a liquid fatty phase based on at least one oil.

Apolar hydrocarbon-based oil

The composition according to the invention comprises less than 2% or even less than 1% of apolar hydrocarbon-based oil, or alternatively is totally free of apolar hydrocarbon-based oil.
For the purposes of the present invention, the term "apolar hydrocarbon-based oil" means an oil whose solubility parameter at 25°C, $\delta_a$, is equal to 0 (J/cm$^3$)$^{1/2}$.

The definition and calculation of the solubility parameters in the Hansen three-dimensional solubility space are described in the article by CM. 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;
- $\delta_p$ 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.);
- $\delta_a$ is determined by the equation: $\delta_a = (\delta_p^2 + \delta_h^2)^{1/2}$.

The parameters $\delta_p$, $\delta_h$, $\delta_D$ and $\delta_a$ are expressed in (J/cm$^3$)$^{1/2}$.

The term "apolar hydrocarbon-based oil" means an oil constituted solely of carbon and hydrogen atoms, and in particular constituted solely of carbon and hydrogen atoms and free of heteroatoms such as N, O, Si and P.

Examples of apolar hydrocarbon-based oils that may be mentioned include:
- hydrocarbon-based oils, for instance squalene, linear or branched hydrocarbons such as liquid paraffin, liquid petroleum jelly and naphthalene oil, hydrogenated or partially hydrogenated polyisobutene, isoeicosane, squalane, decene/butene copolymers, polybutene/polyisobutene copolymers, especially Indopol L-14, and polydecenes such as Puresyn 10, and mixtures
thereof.

In particular, mention may be made of non-volatile hydrocarbon-based apolar oils of high molecular mass, for example between 650 and 10 000 g/mol, for instance:

- polybutylenes such as Indopol H-I00 (molar mass or MM = 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,
- hydrogenated polyisobutylene such as Panalane H-300 E sold or manufactured by the company Amoco (MW = 1340 g/mol), Viseal 20000 sold or manufactured by the company Synteal (MW = 6000 g/mol) and Rewopal PIB 1000 sold or manufactured by the company Witco (MW = 1000 g/mol),
- polydecenes and hydrogenated polydecenes such as Puresyn 150 (MW = 9200 g/mol) sold by the company Mobil Chemicals,
- a mixture thereof.

The composition according to the invention is free of apolar hydrocarbon-based oil, whether it is volatile or non-volatile.

The term "volatile oil" means an oil (or non-aqueous medium) capable of evaporating on contact with the skin in less than one hour, at room temperature and atmospheric pressure. 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 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).

In addition, the volatile oil generally has a boiling
point, measured at atmospheric pressure, ranging from 150\(^0\)C to 260\(^0\)C and preferably ranging from 170\(^0\)C to 250\(^0\)C.

5 The term "non-volatile oil" means any oil having a non-zero vapour pressure at room temperature and atmospheric pressure, of less than 0.02 mmHg and better still less than 10\(^{-3}\) mmHg.

10 The apolar hydrocarbon-based volatile oil of which the composition according to the invention is free (or which is present at less than 2% in the composition) may especially be an apolar hydrocarbon-based oil with a flash point ranging from 40\(^0\)C to 102\(^0\)C, preferably ranging from 40\(^0\)C to 55\(^0\)C and preferentially ranging from 40\(^0\)C to 50\(^0\)C.

Apolar hydrocarbon-based volatile oils that may be mentioned include hydrocarbon-based volatile oils containing from 8 to 16 carbon atoms and mixtures thereof, and especially branched C\(_8\)-C\(_6\) alkanes such as C\(_8\)-C\(_6\) isoalkanes (also known as isoparaffins), isododecane, isodecane and isohexadecane, for example the oils sold under the trade name Isopar or Permethyl, and mixtures thereof.

Other oils

The composition may thus comprise volatile or non-volatile polar hydrocarbon-based oils, silicone oils and/or fluoro oils.

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

For the purposes of the present invention, the term "polar oil" means an oil whose solubility parameter at 25\(^0\)C, \(\delta_a\), is other than 0 (J/cm\(^3\))\(^{1/2}\).
The term "polar hydrocarbon-based oil" means an oil formed essentially from, or even constituted of, carbon and hydrogen atoms, and possibly oxygen and nitrogen atoms, and containing no silicon or fluorine atoms. It may contain alcohol, ester, ether, carboxylic acid, amine and/or amide groups.

The term "silicone oil" means an oil containing at least one silicon atom, and especially containing Si-O groups.

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

Advantageously, the oil(s) present in the composition may represent from 0.001% to 90%, preferably from 0.05% to 60% and better still from 1% to 55% of the total weight of the composition.

Non-volatile polar oil

The non-volatile polar oil may be chosen from the list of oils below (and a mixture thereof):

- hydrocarbon-based plant oils such as liquid fatty acid triglycerides containing from 4 to 10 carbon atoms, for instance heptanoic or octanoic acid triglycerides or jojoba oil;
- hydrocarbon-based esters of formula RCOOR' in which RCOO represents a carboxylic acid residue containing from 2 to 30 carbon atoms and R' represents a hydrocarbon-based chain containing from 1 to 30 carbon atoms, such as isononyl isononanoate, oleyl erucate or 2-octyldecyl neopentanoate;
- fatty alcohols containing from 12 to 26 carbon atoms, for instance octyldodecanol, 2-butyloctanol, 2-hexyldecanol, 2-undecylpentadecanol or oleyl alcohol;
- fluoro oils that are optionally partially
- hydrocarbon-based and/or silicone-based;
- silicone oils such as phenyl silicones, for instance Belsil PDM 1000 from the company Wacker (MW = 9000 g/mol),
- 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;
- non-volatile oils of high molecular mass, for example between 650 and 10 000 g/mol, for instance vinylpyrrolidone copolymers such as the vinylpyrrolidone/1-hexadecene copolymer Antaron V-216 sold or manufactured by the company ISP (MW = 7300 g/mol),
- esters such as:
  a) linear fatty acid esters with a total carbon number ranging from 35 to 70, for instance pentaerythrityl tetrapelargonate (MW = 697.05 g/mol),
  b) hydroxylated esters such as polyglyceryl-2 triisostearate (MW = 965.58 g/mol),
  c) aromatic esters such as tridecyl trimellitate (MW = 757.19 g/mol),
  d) esters of branched C_{14}-C_{28} fatty acids or fatty alcohols such as those described in patent application EP-A-O 955 039, and especially triisoarachidyl citrate (MW = 1033.76 g/mol), pentaerythrityl tetraisoonanoate (MW = 697.05 g/mol), glyceryl triisostearate (MW = 891.51 g/mol), glyceryl 2-tridecyl tetradecanoate (MW = 1143.98 g/mol), pentaerythrityl tetraisostearate (MW = 1202.02 g/mol), polyglyceryl-2 tetraisostearate (MW = 1232.04 g/mol) or pentaerythrityl 2-tetradecyl tetradecanoate (MW = 1538.66 g/mol),
  e) diol dimer esters and polyesters, such as diol dimer esters of a fatty acid, and diol dimer esters of a diacid;
- and mixtures thereof.

The diol dimer esters of a monocarboxylic acid may be
obtained from a monocarboxylic acid containing from 4 to 34 carbon atoms and especially from 10 to 32 carbon atoms, which acids are linear or branched, and saturated or unsaturated.

As illustrative examples of monocarboxylic acids that are suitable for use in the invention, mention may be made especially of fatty acids.

The diol dimer esters of a dicarboxylic acid may be obtained from a diacid dimer derived in particular from the dimerization of an unsaturated fatty acid, especially of \( C_{12} \)-\( C_{24} \), especially of \( C_{12} \)-\( C_{24} \) in particular of \( C_{16} \)-\( C_{24} \) and more particularly of \( C_{18} \).

According to one particular variant, it is more particularly the diacid dimer from which the diol dimer to be esterified is also derived.

The diol dimer esters may be obtained from a diol dimer produced by catalytic hydrogenation of a diacid dimer as described previously, for example hydrogenated dilinoleic diacid.

As illustrations of diol dimer esters, mention may be made especially of 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-DA7®.

**Volatile polar oil**

According to one embodiment, the composition may comprise one or more volatile oils.

The volatile oil may be a polar hydrocarbon-based oil, a silicone oil or a fluoro oil, as defined previously.
As volatile hydrocarbon-based solvents (oils) that may be used in the composition according to the invention, mention may be made of ketones that are liquid at room 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 that are liquid at room temperature, such as diethyl ether, dimethyl ether or dichlorodiethyl ether; linear or branched lower alcohols and especially monoalcohols containing from 2 to 5 carbon atoms, for instance ethanol, isopropanol or n-propanol.

The volatile silicone oil that may be used in the invention may be chosen from silicone oils with a flash point ranging from 40°C to 102°C, preferably with a flash point of greater than 55°C and less than or equal to 95°C, and preferentially ranging from 65°C to 95°C.

As volatile silicone oils that may be used in the invention, mention may be made of linear or cyclic silicones with a viscosity at room temperature of less than 8 cSt and especially containing from 2 to 7 silicon atoms, these silicones optionally comprising alkyl or alkoxy groups containing from 1 to 10 carbon atoms. As volatile silicone oils that may be used in the invention, mention may be made especially of octamethylcyclotetrasiloxane, decamethylocyclopentasiloxane, dodecamethylcyclohexasiloxane, heptamethylhexyltrisiloxane, heptamethyloctyltrisiloxane, octamethyltrisiloxane and decamethyltetrasiloxane, and mixtures thereof.

As volatile silicone oils that may be used in the invention, mention may be made of the silicones described in the unpublished patent application FR 0 304 259.
Preferably, the composition has a volatile oil content of less than or equal to 50% by weight, preferably less than or equal to 30% and better still less than or equal to 10% by weight relative to the total weight of the composition.

More preferably, the composition according to the invention is free of volatile oil, i.e. it comprises less than 2% or even less than 1%, or is even totally free of volatile oil.

**Filler**

Advantageously, the composition according to the invention comprises at least one filler, especially in a total content ranging from 0.01% to 50% by weight and preferably ranging from 0.01% to 30% by weight relative to the total weight of the composition.

For the purposes of the present invention, the term "fillers" should be understood as meaning colourless or white, mineral or synthetic particles of any form, 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 texture of the composition.

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, polyamide (Nylon®) powder (Orgasol® from Atochem), poly-β-alanine powder and polyethylene powder, powders of tetrafluoroethylene polymers (Teflon®), lauroyllysine, starch, boron nitride, hollow polymer microspheres such as those of polyvinylidene chloride/acrylonitrile, for instance...
Expancel® (Nobel Industrie) or of acrylic acid copolymers (Polytrap® from the company Dow Corning) and silicone resin microbeads (Tospearls® from Toshiba, for example), elastomeric polyorganosiloxane particles, precipitated calcium carbonate, magnesium carbonate, magnesium hydrogen carbonate, hydroxyapatite, hollow silica microspheres (Silica Beads® from Maprecos), 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 or lithium stearate, zinc laurate or magnesium myristate.

According to a more preferred aspect of the invention, polyurethane particles, also referred to as polyurethane powder, are used as filler.

In the present invention, the term "polyurethane particles" is intended to denote particles constituted of a material that is at least partly of polyurethane type.

They are advantageously in a crosslinked form.

The particles used in the present invention have, according to one particular embodiment, a mean size ranging from 4 to 20 µm and in particular from 5 to 15 µm.

The fillers (particles) used in the present invention are generally and preferentially substantially spherical.

The term "spherical" means an essentially spherical shape, especially in the form of beads, preferably with a particle size of between 1 and 15 microns and preferably of about 10 microns.
According to one particular embodiment, the polyurethane particles used are particles comprising a copolymer, the 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.

Preferably, the polyurethane powder is present in a content ranging from 0.1% to 30% by weight, preferably from 0.1% to 15% by weight and preferentially from 1% to 10% by weight relative to the total weight of the composition.

**Physiologically acceptable medium**

The composition of the invention should be cosmetically or dermatologically acceptable, i.e. it should contain a non-toxic physiologically acceptable medium that can be applied to human lips. For the purposes of the invention, the term "cosmetically acceptable" means a composition of pleasant appearance, odour and feel.

**Structuring/thickening agent**

The composition according to the invention may comprise, besides the waxes that may be present, at least one structuring agent chosen from semi-crystalline polymers and lipophilic gelling agents, and mixtures thereof.

**Semi-crystalline polymers**

The term "semi-crystalline polymer" means compounds containing at least two repeating units, preferably at least three repeating units and more especially at least ten repeating units. The term "semi-crystalline
polymer" means polymers comprising a crystallizable portion, a crystallizable side chain or a crystallizable block in the backbone, and an amorphous portion in the backbone and having a first-order reversible phase-change temperature, in particular of melting (solid-liquid transition). When the crystallizable portion is in the form of a crystallizable block of the polymer backbone, the amorphous portion of the polymer is in the form of an amorphous block; in this case, the semi-crystalline polymer is a block copolymer, for example, of the diblock, triblock or multiblock type, comprising at least one crystallizable block and at least one amorphous block. The term "block" generally means at least five identical repeating units. The crystallizable block(s) is (are) of chemical nature different than that of the amorphous block(s).

The semi-crystalline polymer has a melting point of greater than or equal to 30°C (especially ranging from 30°C to 80°C), preferably ranging from 30°C to 60°C. This melting point is a first-order change of state temperature.

This melting point may be measured by any known method and in particular using a differential scanning calorimeter (DSC).

Advantageously, the semi-crystalline polymer(s) to which the invention applies have a number-average molecular mass of greater than or equal to 1000. Advantageously, the semi-crystalline polymer(s) of the composition in accordance with the invention have a number-average molecular mass Mn ranging from 2000 to 800 000, preferably from 3000 to 500 000, better still from 4000 to 150 000, especially less than 100 000 and better still from 4000 to 99 000. Preferably, they have a number-average molecular mass of greater than 5600,
for example ranging from 5700 to 99000. For the purposes of the invention, the term "crystallizable chain or block" means a chain or block which, if it were alone, would reversibly change from the amorphous state to the crystalline state, depending on whether the system is above or below the melting point. For the purposes of the invention, a chain is a group of atoms, which is pendent or lateral relative to the polymer backbone. A block is a group of atoms belonging to the backbone, this group constituting one of the repeating units of the polymer. Advantageously, the "crystallizable side chain" may be a chain containing at least six carbon atoms.

The semi-crystalline polymer may be chosen from block copolymers comprising at least one crystallizable block and at least one amorphous block, and homopolymers and copolymers bearing at least one crystallizable side chain per repeating unit, and mixtures thereof.

Such polymers are described, for example, in document EP 1 396 259.

According to a more particular embodiment of the invention, the polymer is derived from a monomer containing a crystallizable chain chosen from saturated C14-C22 alkyl (meth)acrylates.

As a particular example of a structuring semi-crystalline polymer that may be used in the composition in accordance with the invention, mention may be made of the Intelimer® products from the company Landec described in the brochure "Intelimer® Polymers", Landec IP22 (Rev. 4-97). These polymers are in solid form at room temperature (25°C). They bear crystallizable side chains.
Lipophilic gelling agents

According to one embodiment, the composition according to the invention may comprise at least one gelling agent. The gelling agents that may be used in the compositions according to the invention may be organic or mineral, polymeric or molecular lipophilic gelling agents.

Mineral lipophilic gelling agents that may be mentioned include optionally modified clays, for instance hectorites modified with a C<sub>10</sub> to C<sub>22</sub> ammonium chloride, for instance hectorite modified with distearyldimethylammonium chloride, for instance the product sold under the name Bentone 38V® by the company Elementis.

Mention may also be made of fumed silica optionally subjected to a hydrophobic surface treatment, the particle size of which is less than 1 µm. Specifically, it is possible to chemically modify the surface of the silica, by chemical reaction generating a reduced number of silanol groups present at the surface of the silica. It is especially possible to substitute silanol groups with hydrophobic groups: a hydrophobic silica is then obtained. The hydrophobic groups may be:

- trimethylsiloxy groups, which are obtained especially by treating fumed silica in the presence of hexamethyldisilazane. Silicas thus treated are known as "silica silylate" according to the CTFA (8th edition, 2000). They are sold, for example, under the references Aerosil R812® by the company Degussa, and Cab-O-Sil TS-530® by the company Cabot;
- dimethylsiloxy or polydimethylsiloxy groups, which are obtained especially by treating fumed silica in the presence of polydimethylsiloxane or dimethyl-dichlorosilane. Silicas thus treated are known as "silica dimethyl silylate" according to the CTFA (8th
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.

The hydrophobic fumed silica in particular has a particle size that may be nanometric to micrometric, for example ranging from about 5 to 200 nm.

The polymeric organic lipophilic gelling agents are, for example, partially or totally crosslinked elastomeric organopolysiloxanes of three-dimensional structure, for instance those sold under the names KSG6®, KSG16® and KSG18® from Shin-Etsu, Trefil E-505C® or Trefil E-506C® from Dow Corning, Gransil SR-CYC®, SR DMF 10®, SR-DC556®, SR 5CYC gel®, SR DMF 10 gel® and SR DC 556 gel® from Grant Industries and SF 1204® and JK 113® from General Electric; ethylcellulose, for instance the product sold under the name Ethocel® by Dow Chemical; galactomannans comprising from one to six and in particular from two to four hydroxyl groups per saccharide, substituted with a saturated or unsaturated alkyl chain, for instance guar gum alkylated with Ci to C₆, and in particular Ci to C₃, alkyl chains, and mixtures thereof. Block copolymers of "diblock", "triblock" or "radial" type, of the polystyrene/polyisoprene or polystyrene/polybutadiene type, such as the products sold under the name Luvitol HSB® by the company BASF, of the polystyrene/copoly (ethylene-propylene) type, such as the products sold under the name Kraton® by the company Shell Chemical Co., or of the polystyrene/copoly (ethylene-butylene) type, and mixtures of triblock and radial (star) copolymers in isododecane, such as those sold by the company Penreco under the name Versagel®, for instance the mixture of butylene/ethylene/styrene triblock copolymer and of ethylene/propylene/styrene star copolymer in isododecane (Versagel M 5960).
Lipophilic gelling agents that may also be mentioned include polymers with a weight-average molecular mass of less than 100,000, comprising (a) a polymer backbone with hydrocarbon-based repeating units containing at least one heteroatom, and optionally (b) at least one optionally functionalized pendent fatty chain and/or terminal fatty chain, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units, as described in patent applications WO-A-02/056,847 and WO-A-02/476,19, the content of which is incorporated by reference; in particular, polyamide resins (especially comprising alkyl groups containing from 12 to 22 carbon atoms) such as those described in US-A-5,783,657, the content of which is incorporated by reference.

Among the lipophilic gelling agents that may be used in the compositions according to the invention, mention may also be made of fatty acid esters of dextrin, such as dextrin palmitates, especially the products sold under the name Rheopar® TL® or Rheopar® KL® by the company Chiba Flour.


These silicone polymers may belong to the following two families:
- polyorganosiloxanes comprising at least two groups capable of establishing hydrogen interactions, these two groups being in the chain of the polymer, and/or
- polyorganosiloxanes comprising at least two groups capable of establishing hydrogen interactions, these two groups being located on grafts or branches.
**Film-forming agent**

The compositions may comprise at least one film-forming polymer.

According to one embodiment, the composition contains at least one polymer that may be chosen from film-forming polymers.

For the purposes of the invention, the term "polymer" means a compound containing at least two repeating units and preferably at least three repeating units.

The term "film-forming polymer" means a polymer that is capable, by itself or in the presence of an auxiliary film-forming agent, of forming a macroscopically continuous film on a support, especially on keratin materials.

The polymer may be present in the composition in a content ranging from 0.1% to 60% by weight, preferably ranging from 0.1% to 50% by weight, preferably ranging from 0.5% to 40% by weight, preferentially ranging from 1% to 30% by weight and more preferentially ranging from 1% to 25% by weight relative to the total weight of the composition.

In one embodiment, the organic film-forming polymer is at least one polymer chosen from the group comprising:

- film-forming polymers that are soluble in an organic liquid medium, in particular liposoluble polymers, when the organic liquid medium comprises at least one oil;
- film-forming polymers that are dispersible in an organic solvent medium, in particular polymers in the form of non-aqueous dispersions of polymer particles, preferably dispersions in silicone oils or hydrocarbon-based oils; in one embodiment, the non-aqueous polymer dispersions comprise polymer particles that are
surface-stabilized with at least one stabilizer;
- film-forming polymers in the form of aqueous
dispersions of polymer particles, which are often
referred to as "latices"; in this case, the composition
comprises an aqueous phase;
- water-soluble film-forming polymers; in this case,
the composition comprises an aqueous phase.

Among the film-forming polymers that may be used in the
composition of the present invention, mention may be
made of synthetic polymers, of free-radical type or of
polycondensate type, and polymers of natural origin,
and mixtures thereof. The film-forming polymers that
may be mentioned in particular include acrylic
polymers, polyurethanes, polyesters, polyamides,
polyureas, silicone polymers, silicone-grafted acrylic
polymers, polyamide polymers and copolymers, and
polyisoprenes.

It is understood that the amount of these additional
compounds may be adjusted by a person skilled in the
art so as not to adversely affect the desired effect in
the context of the present invention.

**Dyestuffs**

The cosmetic composition according to the invention
comprises at least one colouring agent. This agent may
be chosen from water-soluble or liposoluble dyes,
pigments and nacres, and mixtures thereof.

The composition according to the invention may also
comprise one or more dyestuffs chosen from water-
soluble dyes and pulverulent dyestuffs, for instance
pigments, nacres and glitter flakes that are well known
to those skilled in the art. The dyestuffs may be
present in the composition in a content ranging from
0.01% to 50% by weight and preferably from 0.01% to 30%
by weight relative to the weight of the composition.

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

The pigments may be present in a proportion of from 0.01% to 20% by weight, especially from 0.01% to 15% by weight and in particular from 0.02% to 10% by weight relative to the total weight of the cosmetic composition.

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.

They may also be pigments with 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.

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.

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

The term "nacres" should be understood as meaning iridescent or non-iridescent coloured particles of any form, especially produced by certain mollusc in their shell, or else synthesized, and which have a colour effect by optical interference.

The nacres may be chosen from nacreous pigments such as titanium mica coated with an iron oxide, titanium 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 mica-based nacres Timica, Flamenco and Duochrome 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, orangey, 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 Brillant 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 Tanopale 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-
The first and/or second 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, β-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.

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 colouring 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 simultaneously afford two effects, or even a novel effect in accordance with the invention.

The particles with a metallic tint that may be used in the invention are chosen in particular from:
- particles of at least one metal and/or of at least one metal derivative,
- particles comprising a mono-material or multi-material organic or mineral substrate, at least partially coated with at least one coat with a metallic alcoholic phase.
tint comprising at least one metal and/or at least one metal derivative, and mixtures of the said particles.

Among the metals that may be present in the said particles, mention may be made, for example, of Ag, Au, Cu, Al, Ni, Sn, Mg, Cr, Mo, Ti, Zr, Pt, Va, Rb, W, Zn, Ge, Te and Se, and mixtures or alloys thereof. Ag, Au, Cu, Al, Zn, Ni, Mo and Cr and mixtures or alloys thereof (for example bronzes and brasses) are preferred metals.

The term "metal derivatives" is intended to denote compounds derived from metals, especially oxides, fluorides, chlorides and sulfides.

As illustrations of these particles, mention may be made of aluminium particles, such as those sold under the names Starbrite 1200 EAC® by the company Siberline, and Metalure® by the company Eckart.

Mention may also be made of copper metal powders or alloy mixtures such as the reference 2844 sold by the company Radium Bronze, metallic pigments such as aluminium or bronze, such as those sold under the name Rotosafe 700 from the company Eckart, the silica-coated aluminium particles sold under the name Visionaire Bright Silver from the company Eckart and metal alloy particles, for instance the silica-coated bronze (alloy of copper and zinc) powders sold under the name Visionaire Bright Natural Gold from the company Eckart.

They may also be particles comprising a glass substrate, such as those sold by the company Nippon Sheet Glass under the name Microglass Metashine.

The goniochromatic colouring agent may be chosen, for example, from multilayer interference structures and
liquid-crystal colouring agents.

Examples of symmetrical multilayer interference structures that may be used in the compositions prepared in accordance with the invention are, for example, the following structures: Al/SiO₂/Al/SiO₂/Al, pigments having this structure being sold by the company Dupont de Nemours; Cr/MgF₂/Al/MgF₂/Cr, pigments having this structure being sold under the name Chromaflair by the company Flex; MoS₂/SiO₂/Al/SiO₂/MoS₂; Fe₂O₃/SiO₂/Al/SiO₂/Fe₂O₃, and Fe₂O₃/SiO₂/Fe₂O₃/SiO₂/Fe₂O₃.

pigments having these structures being sold under the name Sicopearl by the company BASF; MoS₂/SiO₂/mica-oxide/SiO₂/MoS₂; Fe₂O₃/SiO₂/mica-oxide/SiO₂/Fe₂O₃; TiO₂/SiO₂/TiO₂ and TiO₂/Al₂O₃/TiO₂; SnO/TiO₂/SiO₂/TiO₂/SnO; Fe₂O₃/SiO₂/Fe₂O₃; SnO/mica/TiO₂/SiO₂/TiO₂/mica/SnO, pigments having these structures being sold under the name Xirona by the company Merck (Darmstadt). By way of example, these pigments may be the pigments of silica/titanium oxide/tin oxide structure sold under the name Xirona Magic by the company Merck, the pigments of silica/brown iron oxide structure sold under the name Xirona Indian Summer by the company Merck and the pigments of silica/titanium oxide/mica/tin oxide structure sold under the name Xirona Caribbean Blue by the company Merck. Mention may also be made of the Infinite Colors pigments from the company Shiseido. Depending on the thickness and the nature of the various layers, different effects are obtained. Thus, with the Fe₂O₃/SiO₂/Al/SiO₂/Fe₂O₃ structure, the colour changes from green-golden to red-grey for SiO₂ layers of 320 to 350 nm; from red to golden for SiO₂ layers of 380 to 400 nm; from violet to green for SiO₂ layers of 410 to 420 nm; from copper to red for SiO₂ layers of 430 to 440 nm.

Examples of pigments with a polymeric multilayer structure that may be mentioned include those sold by
the company 3M under the name Color Glitter.

Examples of liquid-crystal goniochromatic particles that may be used include those sold by the company Chenix and also the products sold under the name Helicone® HC by the company Wacker.

**Usual additional cosmetic ingredients**

The composition according to the invention may also comprise any usual cosmetic ingredient, which may be chosen especially from antioxidants, fragrances, preserving agents, neutralizers, surfactants, sunscreens, vitamins, moisturizers, self-tanning compounds, anti-wrinkle active agents, emollients, hydrophilic or lipophilic active agents, free-radical scavengers, deodorants, sequestrants and film-forming agents, and mixtures thereof.

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 invention are not, or are not substantially, adversely affected by the envisaged addition.

Advantageously, the composition according to the invention is in the form of a solid foundation, a lipstick wand or paste, a concealer product, an eye contour product, an eyeliner, a mascara, an eyeshadow, a body makeup product or a skin colouring product.

In particular, the composition of the invention may be in the form of a coloured lip makeup product, for instance a lipstick, a lip gloss or a lip pencil, possibly having care or treating properties. It may be in the form of an anhydrous stick.
The invention also relates to a process for making up or caring for the skin and/or the lips and/or the integuments, in which the composition according to the invention is applied.

Finally, the invention also relates to the use of an ester wax, optionally in the presence of an apolar wax, in the absence of apolar hydrocarbon-based oil or in the presence thereof in an amount of less than 2%, or even 1% by weight relative to the weight of the composition, as defined previously, for preparing a cosmetic composition for the skin and/or the lips and/or the integuments, which is capable of affording a film of improved gloss and gloss fastness.

The composition according to the invention may be manufactured via the known processes generally used in cosmetics or dermatology. For example, it may be manufactured via the following process.

In a first stage, the fillers and the pigments may be ground in part of the oily phase.

The rest of the liposoluble ingredients may then be mixed together at a temperature of about 100°C. The ground material or the predispersed active agents may then be added to the oily phase.

The hydrophilic active agents, if any, may then be dispersed using a mechanical mixer.

Finally, the composition may be poured into a mould suitable for giving it the final shape (for example a stick shape) and the whole may be left to cool at room temperature and/or in a freezer.

The invention is illustrated in greater detail in the examples that follow, which are given as illustrations.
with no limiting nature. The percentages are weight percentages.

Examples 1 and 2: Lipsticks

Two lipstick formulations are prepared:
- one in accordance with the invention (composition 2), incorporates an ester wax: the wax C20-40 alkyl stearate, and an apolar wax: microcrystalline wax;
- the other, the "comparative" formulation (composition 1), replaces in the preceding composition the ester wax with an apolar wax: polyethylene wax, and therefore does not comprise an ester wax.

The compositions are obtained according to the following protocol:
In a first stage, the fillers and pigments are ground in part of the oily phase.
The rest of the liposoluble ingredients are then mixed together at a temperature of about 100 °C. The ground material or the predispersed active agents are then added to the oily phase.
Finally, the composition is poured into a mould allowing the production of sticks 11.06 mm in diameter, and the whole is left to cool in a freezer for about one hour.

<table>
<thead>
<tr>
<th>Starting materials (US INCI name)</th>
<th>TYPE</th>
<th>Composition 1 Comparative</th>
<th>Composition 2 according to the invention</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHT</td>
<td>Active agent</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>Yellow 5 Lake</td>
<td>Dye</td>
<td>0.85</td>
<td>0.85</td>
</tr>
<tr>
<td>Iron oxides (and) iron oxides</td>
<td>Dye</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Blue 1 Lake</td>
<td>Dye</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Red 7</td>
<td>Dye</td>
<td>0.45</td>
<td>0.45</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>Dye</td>
<td>0.2</td>
<td>0.2</td>
</tr>
</tbody>
</table>
It emerges that composition 2 according to the invention is softer and more melting on application than the comparative composition 1. In addition, composition 2 according to the invention migrates less than composition 1.
Finally, it is observed that composition 2 according to the invention shows on application improved gloss compared with the comparative composition 1, and also better gloss fastness over time. In particular, 2 hours after application, it is observed that the deposit on the lips made with composition 2 is glossier than that made with composition 1.

Examples 3 and 4: Lipsticks in stick form

The following formulations were prepared, in the same manner as described previously.

<table>
<thead>
<tr>
<th>Starting materials (US INCI name)</th>
<th>TYPE</th>
<th>Composition 3 according to the invention</th>
<th>Composition 4 according to the invention</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHT</td>
<td>Active agent</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>Yellow 5 Lake</td>
<td>Dye</td>
<td>0.85</td>
<td>0.85</td>
</tr>
<tr>
<td>Iron oxides (and) iron oxides</td>
<td>Dye</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Blue 1 Lake</td>
<td>Dye</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Red 7</td>
<td>Dye</td>
<td>0.45</td>
<td>0.45</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>Dye</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Octyldodecanol</td>
<td>Fatty substance</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Microcrystalline wax (Microwax HW from Paramelt)</td>
<td>Fatty substance wax</td>
<td>7.64</td>
<td>4.55</td>
</tr>
<tr>
<td>Arachidyl propionate</td>
<td>Fatty substance</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Bis(diacylglyceryl) polyacrylate-2</td>
<td>Fatty substance</td>
<td>10.58</td>
<td>10.58</td>
</tr>
<tr>
<td>D11sostearyl malate</td>
<td>Fatty substance</td>
<td>16.37</td>
<td>16.37</td>
</tr>
<tr>
<td>Octyldodecyl neopentanoate</td>
<td>Fatty</td>
<td>16.13</td>
<td>16.13</td>
</tr>
</tbody>
</table>
The lipstick compositions 3 and 4 according to the invention have, like composition 2, improved properties of melting on application, of gloss and of gloss fastness, and also of migration resistance, compared with comparative composition 1.

Example 5: Lipsticks in stick form outside the invention

The following formulation was prepared, in the same manner as described previously.

<table>
<thead>
<tr>
<th>Starting materials (US INCI name)</th>
<th>TYPE</th>
<th>Composition 5 comparative</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHT</td>
<td>Active agent</td>
<td>0.06</td>
</tr>
<tr>
<td>Yellow 5 Lake</td>
<td>Dye</td>
<td>0.85</td>
</tr>
<tr>
<td>Iron oxides (and) iron oxides</td>
<td>Dye</td>
<td>0.95</td>
</tr>
<tr>
<td>Blue 1 Lake</td>
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### Comparative composition 5 above is identical to composition 2 according to the invention described above, in which the dimer dilinoleyl dimer dilinoleate has been replaced weight-for-weight with a non-volatile apolar oil: polybutene.

Composition 5 is less glossy than composition 2 and also has poorer colour fastness and gloss fastness.
1. Cosmetic makeup and/or care composition comprising at least one fatty phase comprising at least one colouring agent and at least one ester wax chosen from:
   - waxes obtained by hydrogenation of castor oil esterified with cetyl alcohol,
   - C₂₀-C₄₀ alkyl stearate, and
   - bis (1,1,1-trimethylopropane) tetrastearate,

   the said composition comprising less than 2% or even less than 1% by weight of apolar hydrocarbon-based oil relative to the weight of the composition, and the said composition comprising less than 10% by weight of water relative to the total weight of the composition.

2. Composition according to the preceding claim, characterized in that it is totally free of apolar hydrocarbon-based oil.

3. Composition according to the preceding claim, characterized in that it comprises at least one second wax different from the said ester wax.

4. Composition according to the preceding claim, characterized in that the said second wax is an ester wax.

5. Composition according to any one of the preceding claims, characterized in that it comprises a total content of ester wax ranging from 2% to 13% by weight and in particular ranging from 2% to 10% by weight relative to the total weight of the composition.

6. Composition according to Claim 4, characterized in that the said second wax is an apolar wax.

7. Composition according to Claim 6, characterized in that the second apolar wax/ester wax weight ratio in
the composition ranges from 0.5 to 5 and preferably from 0.8 to 3.

8. Composition according to any one of the preceding claims, characterized in that the said apolar wax is a hydrocarbon-based wax.

9. Composition according to the preceding claim, characterized in that the said hydrocarbon-based wax is chosen from:
   - microcrystalline waxes,
   - paraffin waxes,
   - ozokerite, and
   - polyethylene waxes.

10. Composition according to any one of the preceding claims, characterized in that it comprises only two waxes, including the said ester wax.

11. Composition according to any one of Claims 1 to 9, characterized in that it comprises at least one additional third wax.

12. Composition according to any one of the preceding claims, characterized in that it comprises a total content of waxes ranging from 0.1% to 30% by weight, in particular ranging from 0.5% to 15%, more particularly ranging from 1% to 13% or more preferably ranging from 8% to 13% by weight relative to the total weight of the composition.

13. Composition according to any one of the preceding claims, characterized in that it comprises less than 4% by weight of water relative to the total weight of the composition, or even is totally anhydrous.

14. Composition according to any one of the preceding claims, characterized in that it comprises at least one
liquid fatty phase.

15. Composition according to the preceding claim, characterized in that the liquid fatty phase comprises at least one oil chosen from:
- polar hydrocarbon-based oils,
- silicone oils,
- fluoro oils.

16. Composition according to the preceding claim, characterized in that the said oil is a non-volatile oil chosen from:
- hydrocarbon-based plant oils;
- hydrocarbon-based esters of formula RCOOR', in which RCOO represents a carboxylic acid residue containing from 2 to 30 carbon atoms, and R' represents a hydrocarbon-based chain containing from 1 to 30 carbon atoms;
- fatty alcohols containing from 12 to 26 carbon atoms;
- fluoro oils that are optionally partially hydrocarbon-based and/or silicone-based;
- silicone oils such as phenyl silicones;
- 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;
- non-volatile oils of high molecular mass;
- esters;
- and mixtures thereof.

17. Composition according to any one of the preceding claims, characterized in that it comprises less than 2% or even less than 1% of volatile oil, or even is totally free of volatile oil.

18. Composition according to any one of the preceding claims, characterized in that the said composition comprises at least one filler.
19. Composition according to any one of the preceding claims, characterized in that the said filler is constituted of polyurethane particles.

20. Composition according to any one of the preceding claims, characterized in that the said filler is present in a content ranging from 0.1% to 30% by weight, preferably from 0.1% to 15% by weight and preferentially from 1% to 10% by weight relative to the total weight of the composition.

21. Composition according to any one of the preceding claims, characterized in that it comprises at least one pasty fatty substance.

22. Composition according to the preceding claim, characterized in that it comprises a total content of pasty fatty substance ranging from 0.5% to 50% by weight, preferably from 1% to 40% by weight and better still from 5% to 30% by weight relative to the weight of the composition.

23. Composition according to any one of the preceding claims, characterized in that the colouring agent is present in a proportion of from 0.01% to 40%, especially from 0.01% to 30% and in particular from 0.05% to 25% by weight relative to the total weight of the composition.

24. Composition according to the preceding claim, characterized in that the said colouring agent is chosen from pigments, nacres and water-soluble or liposoluble dyes, and mixtures thereof.

25. Composition according to any one of the preceding claims, characterized in that it is in the form of a solid foundation, a lipstick wand or paste, a concealer
product, an eye contour product, an eyeliner, a mascara, an eyeshadow, a body makeup product or a skin colouring product.

26. Process for making up or caring for the skin and/or the lips and/or the integuments, in which a composition as defined according to any one of the preceding claims is applied.

27. Use of a composition according to one of the preceding claims, for preparing a cosmetic composition for the skin and/or the lips and/or the integuments, which can afford a film of improved gloss.
INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2008/062170

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61Q1/06 A61K8/92

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

B. FIELDS SEARCHED

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

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

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X Further documents are listed in the continuation of Box C. X See patent family annex

" Special categories of cited documents
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'P' document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search: 15 January 2009

Date of mailing of the international search report: 23/01/2009

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Fax: (+31-70) 340-2016
Diebold, Alain
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