US 20050089491A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2005/0089491 A1

Collin (43) Pub. Date: Apr. 28, 2005

(54) USE OF A POLYMER FOR OBTAINING AN EXPRESS MAKE-UP OF KERATIN MATERIALS

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(21) Appl. No.: **10/990,475**

(22) Filed: **Nov. 18, 2004**

Related U.S. Application Data

(63) Continuation of application No. 10/012,051, filed on Dec. 11, 2001.

(60) Provisional application No. 60/280,847, filed on Apr. 3, 2001.

(30) **Foreign Application Priority Data**

Dec. 12, 2000 (FR) 00 16164

Publication Classification

(51) **Int. Cl.**[7] **A61K 7/06**; A61K 7/11

(52) **U.S. Cl.** **424/70.11**

(57) **ABSTRACT**

The invention relates to the use of an effective amount of a first polymer with a weight-average molecular mass of less than 100 000, comprising a) a polymer skeleton containing hydrocarbon-based repeating units containing at least one hetero atom, and optionally b) at least one pendent fatty chain and/or at least one terminal fatty chain, which may be functionalized, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units, in a make-up composition comprising a physiologically acceptable medium containing a fatty phase, as an agent for increasing the speed of achieving a make-up result on keratin materials and/or for increasing the adhesion to said keratin materials and/or for rapidly increasing the amount of make-up deposited on the keratin materials.

USE OF A POLYMER FOR OBTAINING AN EXPRESS MAKE-UP OF KERATIN MATERIALS

[0001] The present invention relates to the use of a make-up composition comprising a particular polymer, to obtain an express make-up of keratin materials. The use according to the invention is more particularly intended for human keratin fibers, especially substantially longitudinal keratin fibers, such as the eyelashes, the eyebrows and the hair, or alternatively false eyelashes or wigs. More especially, the composition is a mascara. The term "mascara" means a make-up composition for the eyelashes, a make-up base, a product to be applied over a make-up, also known as a topcoat, or a cosmetic product for treating the eyelashes.

[0002] Compositions for coating the eyelashes, known as mascaras, generally comprise, in a known manner, at least one wax and at least one film-forming polymer to deposit a make-up film on the eyelashes and to coat them, for example as described in documents WO-A-91/12793 and WO-A-95/15741. Users expect these products to have good cosmetic properties, such as adhesion to the eyelashes, lengthening or curling of the eyelashes, or alternatively good staying power of the mascara over time, in particular good resistance to rubbing, for example with the fingers or fabrics (handkerchiefs or towels).

[0003] However, with these compositions, the make-up properties such as the coating, the lengthening or the curling of the eyelashes are obtained when a large amount of product is deposited on the eyelashes using an applicator, such as a mascara brush. The user must therefore apply the brush impregnated with product onto the eyelashes several times, which requires a certain amount of time to be devoted to applying the make-up and obtaining the desired make-up results. However, this time may be perceived as far too long by users in a hurry. There is thus a need to have available mascaras that allow the expected make-up effect to be obtained quickly and easily.

[0004] The aim of the present invention is to provide a composition for making up keratin materials, especially keratin fibers such as the eyelashes, which applies easily to the keratin materials and leads quickly to a make-up effect with good cosmetic properties.

[0005] The inventors have found, surprisingly, that the use of a polymer containing a specific hetero atom in a cosmetic composition makes it possible to improve the adhesion properties of the composition on keratin materials, especially on keratin fibers such as the eyelashes. The composition is easy to apply to the keratin materials and allows the composition to be deposited quickly in an amount that is sufficient to obtain a make-up effect with the expected cosmetic properties. In particular, a thick deposit of the make-up on the keratin materials is quickly obtained, which avoids the users having to spend too long applying the composition to the keratin materials. The composition thus allows an "express" make-up of keratin materials.

[0006] Thus, for a mascara, a make-up which quickly thickens the keratin fibers, in particular the eyelashes, is obtained; instantaneous loading of the eyelashes is thus observed.

[0007] More specifically, a subject of the invention is the use of an effective amount of a first polymer with a weight-average molecular mass of less than 100 000, comprising a) a polymer skeleton containing hydrocarbon-based repeating units containing at least one hetero atom, and optionally b) at least one pendent fatty chain and/or at least one terminal fatty chain, which may be functionalized, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units, in a make-up composition comprising a physiologically acceptable medium containing a fatty phase, as an agent for increasing the speed of achieving a make-up result on keratin materials and/or for increasing the adhesion to said keratin materials and/or for rapidly increasing the amount of make-up deposited on the keratin materials.

[0008] A subject of the invention is also the use of a first polymer with a weight-average molecular mass of less than 100 000, comprising a) a polymer skeleton containing hydrocarbon-based repeating units containing at least one hetero atom, and optionally b) at least one pendent fatty chain and/or at least one terminal fatty chain, which may be functionalized, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units, in a composition for express make-up and/or with good adhesion to and/or that loads quickly onto keratin materials, said composition comprising a physiologically acceptable medium containing a fatty phase.

[0009] A subject of the invention is also a cosmetic process for increasing the adhesion and/or the express loading of a cosmetic make-up composition deposited on the keratin materials, which consists in introducing into said composition containing a fatty phase, a first polymer with a weight-average molecular mass of less than 100 000, comprising a) a polymer skeleton containing hydrocarbon-based repeating units containing at least one hetero atom, and optionally b) at least one pendent fatty chain and/or at least one terminal fatty chain, which may be functionalized, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units.

[0010] A subject of the invention is also a cosmetic process for the express make-up of keratin materials, which consists in introducing, into a cosmetic make-up composition comprising a fatty phase, a first polymer with a weight-average molecular mass of less than 100 000, comprising a) a polymer skeleton containing hydrocarbon-based repeating units containing at least one hetero atom, and optionally b) at least one pendent fatty chain and/or at least one terminal fatty chain, which may be functionalized, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units.

[0011] The expression "physiologically acceptable medium" means a medium which is non-toxic and which can be applied to the skin, superficial body growths or the lips of human beings, such as a cosmetic medium.

[0012] For the purposes of the invention, the expression "functionalized chain" means an alkyl chain comprising one or more functional or reactive groups chosen in particular from amide, hydroxyl, ether, oxyalkylene, polyoxyalkylene and halogen groups, including fluoro or perfluoro groups, ester, siloxane and polysiloxane groups. In addition, the hydrogen atoms of one or more fatty chains may be substituted at least partially with fluorine atoms.

[0013] According to the invention, these chains may be linked directly to the polymer skeleton or via an ester function or a perfluoro group.

[0014] For the purposes of the invention, the term "polymer" means a compound containing at least 2 repeating units and preferably at least 3 repeating units.

[0015] For the purposes of the invention, the expression "hydrocarbon-based repeating units" means a unit containing from 2 to 80 carbon atoms and preferably from 2 to 60 carbon atoms, bearing hydrogen atoms and optionally oxygen atoms, which may be linear, branched or cyclic, and saturated or unsaturated. These units each also comprise one or more hetero atoms that are advantageously non-pendent but are in the polymer skeleton. These hetero atoms are chosen from nitrogen, sulfur and phosphorus atoms and combinations thereof, optionally combined with one or more oxygen atoms. The units preferably comprise at least one nitrogen atom, in particular a non-pendent nitrogen atom. These units also advantageously comprise a carbonyl group.

[0016] The units containing a hetero atom are, in particular, amide units forming a skeleton of the polyamide type, carbamate and/or urea units forming a polyurethane, polyurea and/or polyurea-urethane skeleton. These units are preferably amide units. The pendent chains are advantageously linked directly to at least one of the hetero atoms of the polymer skeleton.

[0017] Between the hydrocarbon-based units, the first polymer may comprise silicone units or oxyalkylene units.

[0018] In addition, the first polymer in the composition of the invention advantageously comprises from 40% to 98% of fatty chains relative to the total number of units containing a hetero atom and of fatty chains, and better still from 50% to 95%. The nature and proportion of the units containing a hetero atom depends on the nature of the fatty phase and is, in particular, similar to the polar nature of the fatty phase. Thus, the more the units containing a hetero atom are polar and in high proportion in the first polymer, which corresponds to the presence of several hetero atoms, the greater the affinity of the first polymer for polar oils. On the other hand, the less polar or even apolar the units containing a hetero atom or the lower their proportion, the greater the affinity of the first polymer for apolar oils.

[0019] The first polymer is advantageously a polyamide. Thus, a subject of the invention is also the uses and processes as defined above in which the first polymer is a polyamide polymer with a weight-average molecular mass of less than 100 000, comprising a) a polymer skeleton containing amide repeating units, and b) optionally at least one pendent fatty chain and/or at least one terminal chain, which may be functionalized, containing from 8 to 120 carbon atoms and being linked to these amide units.

[0020] The pendent fatty chains are preferably linked to at least one of the nitrogen atoms of the amide units of the first polymer.

[0021] In particular, the fatty chains of this polyamide represent from 40% to 98% of the total number of amide units and of fatty chains, and better still from 50% to 95%.

[0022] Advantageously, the first polymer, and in particular the polyamide, of the composition according to the invention has a weight-average molecular mass of less than 100 000 (especially ranging from 1 000 to 100 000), in particular less than 50 000 (especially ranging from 1 000 to 50 000) and more particularly ranging from 1 000 to 30 000, preferably from 2 000 to 20 000 and better still from 2 000 to 10 000.

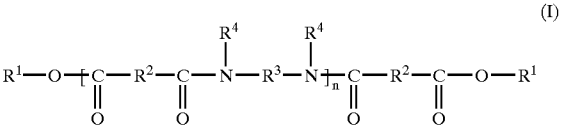
[0023] The first polymer, and in particular the polyamide, is insoluble in water, in particular at 25° C. In particular, it does not contain an ionic group.

[0024] As preferred first polymers which may be used in the invention, mention may be made of polyamides branched with pendent fatty chains and/or terminal fatty chains containing from 6 to 120 carbon atoms and better still from 8 to 120 and in particular from 12 to 68 carbon atoms, each terminal fatty chain being linked to the polyamide skeleton via at least one bonding group, in particular an ester. These polymers preferably comprise a fatty chain at each end of the polymer skeleton and in particular of the polyamide skeleton. Other bonding groups which may be mentioned are ether, amine, urea, urethane, thioester, thiourea and thiourethane groups.

[0025] These first polymers are preferably polymers resulting from a polycondensation between a dicarboxylic acid containing at least 32 carbon atoms (in particular containing from 32 to 44 carbon atoms) and an amine chosen from diamines containing at least 2 carbon atoms (in particular from 2 to 36 carbon atoms) and triamines containing at least 2 carbon atoms (in particular from 2 to 36 carbon atoms. The diacid is preferably a dimer of a fatty acid containing ethylenic unsaturation containing at least 16 carbon atoms, preferably from 16 to 24 carbon atoms, for instance oleic acid, linoleic acid or linolenic acid. The diamine is preferably ethylenediamine, hexylenediamine or hexamethylenediamine. The triamine is, for example, ethylenetriamine. For the polymers comprising one or 2 terminal carboxylic acid groups, it is advantageous to esterify them with a monoalcohol containing at least 4 carbon atoms, preferably from 10 to 36 carbon atoms, better still from 12 to 24 and even better from 16 to. 24, for example 18 carbon atoms.

[0026] These polymers are more especially those disclosed in document U.S. Pat. No. 5,783,657 from the company Union Camp. Each of these polymers in particular satisfies formula (I) below:

(I)



[0027] in which n denotes a number of amide units such that the number of ester groups represents from 10% to 50% of the total number of ester and amide groups; R^1 is, independently in each case, an alkyl or alkenyl group containing at least 4 carbon atoms and in particular from 4 to 24 carbon atoms; R^2 represents, independently in each case, a C_4 to C_{42} hydrocarbon-based group, on condition that 50% of the groups R^2 represent a C_{30} to C_{42} hydrocarbon-based group; R^3 represents, independently in each case, an organic group containing at least 2 carbon atoms, hydrogen atoms and optionally one or more oxygen or nitrogen atoms; and, R^4 represents, independently in each case, a hydrogen

atom, a C_1 to C_{10} alkyl group or a direct bond to R^3 or to another R^4, such that the nitrogen atom to which R^3 and R^4 are both attached forms part of a heterocyclic structure defined by R^4—N—R^3, with at least 50% of the groups R^4 representing a hydrogen atom.

[0028] In the particular case of formula (I), the terminal fatty chains that are optionally functionalized for the purposes of the invention are terminal chains linked to the last hetero atom, in this case nitrogen, of the polyamide skeleton.

[0029] In particular, the ester groups of formula (I), which form part of the terminal and/or pendent fatty chains for the purposes of the invention, represent from 15% to 40% of the total number of ester and amide groups and better still from 20% to 35%. Furthermore, n is advantageously an integer ranging from 1 to 5 and better still greater than 2. Preferably, R^1 is a C_{12} to C_{22} and preferably C_{16} to C_{22} alkyl group. Advantageously, R can be a C_{10} to C_{42} hydrocarbon-based (alkylene) group. Preferably, at least 50% and better still at least 75% of the groups R^2 are groups containing from 30 to 42 carbon atoms. The other groups R^2 are C_4 to C_{18} and better still C_4 to C_{12} hydrogen-containing groups. Preferably, R^3 represents a C_2 to C_{36} hydrocarbon-based group or a polyoxyalkylene group and R^4 represents a hydrogen atom. Preferably, R^3 represents a C_2 to C_{12} hydrocarbon-based group.

[0030] The hydrocarbon-based groups may be linear, cyclic or branched, and saturated or unsaturated groups. Moreover, the alkyl and alkylene groups may be linear or branched, and saturated or unsaturated groups.

[0031] In general, the polymers of formula (I) are in the form of mixtures of polymers, these mixtures also possibly containing a synthetic product corresponding to a compound of formula (I) in which n is 0, i.e. a diester.

[0032] As examples of first polymers according to the invention, mention may be made of the commercial products sold by the company Arizona Chemical under the names Uniclear® 80 and Uniclear® 100. They are sold, respectively, in the form of an 80% (in terms of active material) gel in a mineral oil and a 100% (in terms of active material) gel. They have a softening point of from 88 to 94° C. These commercial products are a mixture of copolymers of a C_{36} diacid condensed with ethylenediamine, having a weight-average molecular mass of about 6 000. The terminal ester groups result from the esterification of the remaining acid endings with cetyl alcohol, stearyl alcohol or mixtures thereof (also known as cetylstearyl alcohol).

[0033] As first polymers which can be used in the invention, mention may also be made of polyamide resins resulting from the condensation of an aliphatic dicarboxylic acid and a diamine (including compounds containing more than 2 carbonyl groups and 2 amine groups), the carbonyl and amine groups of adjacent individual units being condensed via an amide bond. These polyamide resins are, in particular, those sold under the brand name Versamid® by the companies General Mills Inc. and Henkel Corp. (Versamid 930, 744 or 1655) or by the company Olin Mathieson Chemical Corp. under the brand name Onamid®, in particular Onamid S or C. These resins have a weight-average molecular mass ranging from 6 000 to 9 000. For further information regarding these polyamides, reference may be made to the documents U.S. Pat. No. 3,645,705 and U.S. Pat. No. 3,148,125. More especially, Versamid® 930 or 744 is used.

[0034] The polyamides sold by the company Arizona Chemical under the references Uni-Rez® (2658, 2931, 2970, 2621, 2613, 2624, 2665, 1554, 2623 and 2662) and the product sold under the reference Macromelt 6212 by the company Henkel may also be used. For further information regarding these polyamides, reference may be made to document U.S. Pat. No. 5,500,209.

[0035] It is also possible to use polyamide resins obtained from plants, such as those disclosed in patents U.S. Pat. No. 5,783,657 and U.S. Pat. No. 5,998,570.

[0036] The first polymer present in the composition according to the invention advantageously has a softening point of greater than 65° C., which may be up to 190° C. It preferably has a softening point ranging from 70° C. to 130° C. and better still from 80° C. to 105° C. The first polymer is in particular a non-waxy polymer.

[0037] The first polymer according to the invention preferably corresponds to the formula (I) mentioned above. On account of its fatty chain(s), this first polymer is readily soluble in oils and thus leads to compositions that are macroscopically homogeneous even with a high content (at least 25%) of polymer, unlike polymers not containing a fatty chain.

[0038] The first polymer may be present in the composition according to the invention in a content ranging from 0.01% to 10% by weight, relative to the total weight of the composition, preferably ranging from 0.05% to 5% by weight and better still ranging from 0.1% to 3% by weight.

[0039] The fatty phase of the composition can comprise fatty substances chosen from oils, organic solvents, waxes and pasty fatty substances, and mixtures thereof. The fatty phase can form a continuous phase of the composition. In particular, the composition according to the invention may be anhydrous.

[0040] The fatty phase may especially consist of any oil which is physiologically acceptable and in particular cosmetically acceptable, chosen especially from oils of mineral, animal, plant or synthetic origin, carbon-based oils, hydrocarbon-based oils, fluoro oils and/or silicone oils, alone or as a mixture, provided that they form a homogeneous and stable mixture and provided that they are compatible with the intended use.

[0041] The total fatty phase of the composition can represent from 2% to 98% by weight, relative to the total weight of the composition, and preferably from 5% to 85% by weight.

[0042] The fatty phase of the composition can advantageously comprise at least one volatile oil or organic solvent and/or at least one non-volatile oil.

[0043] For the purposes of the invention, the expression "volatile oil or organic solvent" means any non-aqueous medium which can evaporate on contact with the skin in less than one hour at room temperature and atmospheric pressure. The volatile organic solvent(s) and the volatile oils of the invention are volatile cosmetic organic solvents and oils, that are liquid at room temperature, having a non-zero vapor pressure at room temperature and atmospheric pressure, ranging in particular from 10^{-2} to 300 mmHg (0.13 Pa to 40 000 Pa) and preferably greater than 0.3 mmHg (30 Pa). The expression "non-volatile oil" means an oil which remains on

the skin at room temperature and atmospheric pressure for at least several hours and which in particular has a vapor pressure of less than 10^{-2} mmHg (1.33 Pa).

[0044] These oils may be hydrocarbon-based oils, silicone oils or fluoro oils, or mixtures thereof.

[0045] The expression "hydrocarbon-based oil" means an oil mainly containing hydrogen and carbon atoms and optionally oxygen, nitrogen, sulfur or phosphorus atoms. The volatile hydrocarbon-based oils may be chosen from hydrocarbon-based oils containing from 8 to 16 carbon atoms, and especially C_8-C_{16} branched alkanes, for instance C_8-C_{16} isoalkanes of petroleum origin (also known as isoparaffins), for instance isododecane (also 0.20 known as 2,2,4,4,6-pentamethylheptane), isodecane and isohexadecane, and, for example, the oils sold under the trade names Isopars or Permetyls, C_8-C_{16} branched esters, isohexyl neopentanoate, and mixtures thereof. Other volatile hydrocarbon-based oils, for instance petroleum distillates, especially those sold under the name Shell Solt by the company Shell, may also be used. The volatile solvent is preferably chosen from hydrocarbon-based volatile oils containing from 8 to 16 carbon atoms, and mixtures thereof.

[0046] Volatile oils which may also be used are volatile silicones such as, for example, linear or cyclic volatile silicone oils, especially those with a viscosity $\leqq$8 centistokes (8×10^{-6} m^2/s) 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 which may be used in the invention, mention may be made in particular of octamethylcyclotetrasiloxane, decamethylcyclopentasiloxane, dodecamethylcyclohexasiloxane, heptamethylhexyltrisiloxane, heptamethyloctyltrisiloxane, hexamethyldisiloxane, octamethyltrisiloxane, decamethyltetrasiloxane and dodecamethylpentasiloxane, and mixtures thereof.

[0047] Volatile fluoro solvents such as nonafluoromethoxybutane or perfluoromethylcyclopentane may also be used.

[0048] The volatile oil may be present in the composition according to the invention in a content ranging from 0% to 98% by weight (in particular from 0.1% to 98%), relative to the total weight of the composition, preferably from 0% to 65% by weight (in particular from 1% to 65%).

[0049] The composition can also comprise at least one non-volatile oil chosen in particular from non-volatile hydrocarbon-based and/or silicone and/or fluoro oils.

[0050] Non-volatile hydrocarbon-based oils which may be mentioned in particular are:

[0051] hydrocarbon-based plant oils such as triglycerides consisting of fatty acid esters and of glycerol in which the fatty acids may have varied chain lengths from C_4 to C_{24}, these chains possibly being linear or branched, and saturated or unsaturated; these oils are, in particular, wheat germ oil, sunflower oil, grape seed oil, sesame oil, corn oil, apricot oil, castor oil, karite butter, avocado oil, olive oil, soybean oil, sweet almond oil, palm oil, rape seed oil, cotton oil, hazelnut oil, macadamia oil, jojoba oil, alfalfa oil, poppy oil, pumpkin oil, marrow oil, blackcurrant seed oil, evening primrose oil, millet oil, barley oil, quinoa oil, rye oil, safflower oil, candlenut oil, passion flower oil and musk rose oil; or alternatively caprylic/capric acid triglycerides such as those sold by Stearineries Dubois or those sold under the names Miglyol 810, 812 and 818 by Dynamit Nobel;

[0052] synthetic ethers containing from 10 to 40 carbon atoms;

[0053] linear or branched hydrocarbons of mineral or synthetic origin, such as petroleum jelly, polydecenes, hydrogenated polyisobutene such as parleam, and squalane, and mixtures thereof;

[0054] synthetic esters such as oils of formula R_1COOR_2 in which R_1 represents a linear or branched fatty acid residue containing from 1 to 40 carbon atoms and R_2 represents an in particular branched hydrocarbon-based chain containing from 1 to 40 carbon atoms, on condition that $R_5+R_6\geqq10$, such as, for example, purcellin oil (cetostearyl octanoate), isopropyl myristate, isopropyl palmitate, C_{12}-C_{15} alkyl benzoate, hexyl laurate, diisopropyl adipate, isononyl isononanoate, 2-ethylhexyl palmitate, isostearyl isostearate, alkyl or polyalkyl octanoates, decanoates or ricinoleates such as propylene glycol dioctanoate; hydroxylated esters such as isostearyl lactate and diisostearyl malate; and pentaerythritol esters;

[0055] fatty alcohols that are liquid at room temperature, containing a branched and/or unsaturated carbon-based chain containing from 12 to 26 carbon atoms, for instance octyldodecanol, isostearyl alcohol, oleyl alcohol, 2-hexyldecanol, 2-butyloctanol or 2-undecylpentadecanol;

[0056] higher fatty acids such as oleic acid, linoleic acid or linolenic acid; and mixtures thereof.

[0057] The non-volatile silicone oils which may be used in the composition according to the invention may be non-volatile polydimethylsiloxanes (PDMSs), polydimethylsiloxanes comprising alkyl or alkoxy groups, that are pendent and/or at the end of a silicone chain, the groups each containing from 2 to 24 carbon atoms, phenylsilicones, for instance phenyltrimethicones, phenyldimethicones, phenyltrimethylsiloxydiphenylsiloxanes, diphenyldimethicones, diphenylmethyldiphenyltrisiloxanes and 2-phenylethyl trimethylsiloxysilicates.

[0058] The fluoro oils which may be used in the invention are, in particular, fluorosilicone oils, fluoropolyethers or fluorosilicones, as described in document EP-A-847 752.

[0059] The non-volatile oils may be present in the composition according to the invention in a content ranging from 0% to 80% (in particular from 0.1% to 80%) by weight, preferably from 0% to 50% by weight (in particular 0.1% to 50% by weight), relative to the total weight of the composition, and better still from 0% to 20% by weight (in particular 0.1% to 20%).

[0060] The fatty phase of the composition according to the invention can comprise a wax. For the purposes of the present invention, the term "wax" means a lipophilic fatty compound that is solid at room temperature (25° C.) and atmospheric pressure (760 mmHg, i.e. 10^5 Pa), which undergoes a reversible solid/liquid change of state and which has

a melting point of greater than 30° C. and better still greater than 55° C., which may be up to 200° C., in particular up to 120° C.

[0061] By taking the wax to its melting point, it is possible to make it miscible with oils and to form a microscopically homogeneous mixture, but on returning the temperature of the mixture to room temperature, recrystallization of the wax in the mixture of oils is obtained.

[0062] According to the invention, the melting point values correspond to the melting peak measured using a differential scanning calorimeter (DSC), for example the calorimeter sold under the name DSC 30 by the company Mettler, with a temperature increase of 5 or 10° C. per minute.

[0063] For the purposes of the invention, the waxes are those generally used in cosmetics and dermatology. Mention may be made in particular of beeswax, lanolin wax, Chinese insect waxes, rice wax, carnauba wax, candelilla wax, ouricury wax, cork fiber wax, sugar cane wax, Japan wax, sumach wax, montan wax, microcrystalline waxes, paraffin waxes, ozokerites, ceresin wax, lignite wax, polyethylene waxes and the waxes obtained by Fisher-Tropsch synthesis, and fatty acid esters of glycerides that are solid at 40° C. and better still at more than 55° C. Mention may also be made of the waxes obtained by catalytic hydrogenation of animal or plant oils containing linear or branched C_8-C_{32} fatty chains. Among these, mention may be made in particular of hydrogenated jojoba oil, hydrogenated sunflower oil, hydrogenated castor oil, hydrogenated coconut oil and hydrogenated lanolin oil.

[0064] Mention may also be made of silicone waxes or fluoro waxes.

[0065] The waxes present in the composition may be dispersed in the form of particles in an aqueous medium. These particles may have an average size ranging from 50 nm to 10 μm and preferably from 50 nm to 3.5 μm.

[0066] In particular, the wax may be present in the form of a wax-in-water emulsion, the waxes possibly being in the form of particles with an average size ranging from 1 μm to 10 μm and preferably from 1 μm to 3.5 μm.

[0067] In another embodiment of the composition according to the invention, the wax may be present in the form of a wax microdispersion, the wax being in the form of particles with an average size of less than 1 μm and in particular ranging from 50 nm to 500 nm. Wax micro'dispersions are disclosed in documents EP-A-557 196 and EP-A-1 048 282.

[0068] The wax may also have a hardness ranging from 0.05 MPa to 15 MPa and preferably ranging from 6 MPa to 15 MPa. The hardness is determined by measuring the compressive strength, measured at 20° C. using a texturometer sold under the name TA-XT2i by the company Rheo, equipped with a stainless steel cylinder 2 mm in diameter travelling at a measuring speed of 0.1 mm/s, and penetrating into the wax to a penetration depth of 0.3 mm. To carry out the hardness measurement, the wax is melted at a temperature equal to the melting point of the wax +20° C. The molten wax is cast in a container 30 mm in diameter and 20 mm deep. The wax is recrystallized at room temperature (25° C.) over 24 hours and is then stored for at least one hour at 20° C. before carrying out the hardness measurement. The value of the hardness is the compressive strength measured divided by the area of the texturometer cylinder in contact with the wax.

[0069] The wax may be present in the composition according to the invention in a content ranging from 0.1% to 50% by weight, relative to the total weight of the composition, preferably from 0.5% to 30% by weight and better still from 1% to 20% by weight.

[0070] The composition according to the invention may contain at least one fatty compound that is pasty at room temperature. For the purposes of the invention, the expression "pasty fatty substance" means fatty substances with a melting point ranging from 20 to 55° C., preferably 25 to 45° C., and/or a viscosity at 40° C. ranging from 0.1 to 40 Pa·s (1 to 400 poises), preferably 0.5 to 25 Pa·s, measured using a Contraves TV or Rhéomat 80 viscometer, equipped with a spindle rotating at 60 Hz. A person skilled in the art can select the spindle for measuring the viscosity from the spindles MS-r3 and MS-r4, on the basis of his general knowledge, so as to be able to carry out the measurement of the pasty compound tested.

[0071] These fatty substances are preferably hydrocarbon-based compounds, optionally of polymeric type; they can also be chosen from silicone compounds and/or fluoro compounds; they may also be in the form of a mixture of hydrocarbon-based compounds and/or silicone compounds and/or fluoro compounds. In the case of a mixture of different pasty fatty substances, the hydrocarbon-based pasty compounds (containing mainly hydrogen and carbon atoms and optionally ester groups) are preferably used in major proportion.

[0072] Among the pasty compounds which may be used in the composition according to the invention, mention may be made of lanolins and lanolin derivatives such as acetylated lanolins or oxypropylenated lanolins or isopropyl lanolate, having a viscosity of from 18 to 21 Pa·s, preferably 19 to 20.5 Pa·s, and/or a melting point of from 30 to 55° C., and mixtures thereof. It is also possible to use esters of fatty acids or of fatty alcohols, in particular those containing from 20 to 65 carbon atoms (melting point of about from 20 to 35° C. and/or viscosity at 40° C. ranging from 0.1 to 40 Pa·s), such as triisostearyl or cetyl citrate; arachidyl propionate; polyvinyl laurate; cholesterol esters, such as triglycerides of plant origin, such as hydrogenated plant oils, viscous polyesters such as poly(12-hydroxystearic acid), and mixtures thereof. Triglycerides of plant origin which may be used are hydrogenated castor oil derivatives, such as "Thixinr" from Rhéox.

[0073] Mention may also be made of pasty silicone fatty substances such as polydimethylsiloxanes (PDMSs) containing pendent chains of the alkyl or alkoxy type containing from 8 to 24 carbon atoms, and having a melting point of 20-55° C., such as stearyldimethicones, in particular those sold by Dow Corning under the trade names DC2503 and DC25514, and mixtures thereof.

[0074] The pasty fatty substance may be present in the composition according to the invention in a proportion of from 0% to 60% (in particular 0.01% to 60%) by weight, relative to the total weight of the composition, preferably in a proportion of from 0.5% to 45% by weight, and better still ranging from 2% to 30% by weight, in the composition.

[0075] The composition according to the invention may also comprise an aqueous medium, constituting an aqueous phase, which may be the continuous phase of the composition.

[0076] The aqueous phase may consist essentially of water; it may also comprise a mixture of water and of water-miscible solvent (miscibility in water of greater than 50% by weight at 25° C.), for instance lower monoalcohols containing from 1 to 5 carbon atoms such as ethanol or isopropanol, glycols containing from 2 to 8 carbon atoms, such as propylene glycol, ethylene glycol, 1,3-butylene glycol or dipropylene glycol, C_3-C_4 ketones and C_2-C_4 aldehydes.

[0077] The aqueous phase (water and optionally the water-miscible organic solvent) may be present in a content ranging from 1% to 95% by weight, relative to the total weight of the composition, preferably from 3% to 80% by weight and better still from 5% to 60% by weight.

[0078] The composition according to the invention can contain emulsifying surfactants, present in particular in a proportion ranging from 2% to 30% by weight relative to the total weight of the composition, and better still from 5% to 15%. These surfactants may be chosen from anionic and nonionic surfactants. Reference may be made to the document "Encyclopedia of Chemical Technology, Kirk-Othmer", volume 22, pp. 333-432, 3rd edition, 1979, Wiley, for the definition of the properties and functions (emulsifying) of surfactants, in particular pp. 347-377 of said reference, for the anionic and nonionic surfactants.

[0079] The surfactants preferably used in the composition according to the invention are chosen from:

[0080] nonionic surfactants: fatty acids, fatty alcohols, polyethoxylated or polyglycerolated fatty alcohols such as polyethoxylated stearyl or cetylstearyl alcohol, fatty acid esters of sucrose, alkylglucose esters, in particular polyoxyethylenated fatty esters of C_1-C_6 alkyl glucose, and mixtures thereof;

[0081] anionic surfactants: C_{16}-C_{30} fatty acids neutralized with amines, aqueous ammonia or alkaline salts, and mixtures thereof.

[0082] Surfactants which make it possible to obtain an oil-in-water or wax-in-water emulsion are preferably used.

[0083] The composition according to the invention can comprise at least one second film-forming polymer, different from the first polymer described above.

[0084] The second film-forming polymer may be a polymer that is dissolved or dispersed in the form of particles in an aqueous phase of the composition, or alternatively dissolved or dispersed in the form of particles in a liquid fatty phase. The composition may comprise a mixture of these polymers.

[0085] The second film-forming polymer may be present in the composition according to the invention in a solids content ranging from 0.1% to 60% by weight relative to the total weight of the composition, preferably from 0.5% to 40% by weight and better still from 1% to 30% by weight.

[0086] In the present application, the expression "film-forming-polymer" means a polymer which is capable, by itself or in the presence of an auxiliary film-forming agent, of forming a continuous and adherent film on a support, in particular on keratin materials.

[0087] A film-forming polymer capable of forming a hydrophobic film, i.e. a polymer whose film has a water-solubility at 25° C. of less than 1% by weight, is preferably used.

[0088] Among the film-forming polymers which may be used in the composition of the present invention, mention may be made of synthetic polymers, of radical-mediated type or of polycondensate type, and polymers of natural origin, and mixtures thereof.

[0089] The expression "radical-mediated film-forming polymer" means a polymer obtained by polymerization of monomers containing unsaturation, in particular ethylenic unsaturation, each monomer being capable of homopolymerizing (unlike polycondensates).

[0090] The film-forming polymers of radical-mediated type may be, in particular, vinyl polymers or copolymers, in particular acrylic polymers.

[0091] The vinyl film-forming polymers can result from the polymerization of monomers containing ethylenic unsaturation and containing at least one acidic group and/or esters of these acidic monomers and/or amides of these acidic monomers.

[0092] Monomers bearing an acidic group which may be used are α,β-ethylenic unsaturated carboxylic acids such as acrylic acid, methacrylic acid, crotonic acid, maleic acid or itaconic acid. (Meth)acrylic acid and crotonic acid are preferably used, and more preferably (meth)acrylic acid.

[0093] The esters of acidic monomers are advantageously chosen from (meth)acrylic acid esters (also known as (meth)acrylates), especially (meth)acrylates of an alkyl, in particular of a C_1-C_{30} and preferably C_1-C_{20} alkyl, (meth)acrylates of an aryl, in particular of a C_6-C_{10} aryl, and (meth)acrylates of a hydroxyalkyl, in particular of a C_2-C_6 hydroxyalkyl.

[0094] Among the alkyl (meth)acrylates which may be mentioned are methyl methacrylate, ethyl methacrylate, butyl methacrylate, isobutyl methacrylate, 2-ethylhexyl methacrylate, lauryl methacrylate and cyclohexyl methacrylate.

[0095] Among the hydroxyalkyl (meth)acrylates which may be mentioned are hydroxyethyl acrylate, 2-hydroxypropyl acrylate, hydroxyethyl methacrylate and 2-hydroxypropyl methacrylate.

[0096] Among the aryl (meth)acrylates which may be mentioned are benzyl acrylate and phenyl acrylate.

[0097] The (meth)acrylic acid esters that are particularly preferred are the alkyl (meth)acrylates.

[0098] According to the present invention, the alkyl group of the esters may be either fluorinated or perfluorinated, i.e. some or all of the hydrogen atoms of the alkyl group are substituted with fluorine atoms.

[0099] As amides of the acidic monomers, mention may be made, for example, of (meth)acrylamides, and especially N-alkyl(meth)acrylamides, in particular of a C_2-C_{12} alkyl. Among the N-alkyl(meth)acrylamides which may be men-

tioned are N-ethylacrylamide, N-t-butylacrylamide, N-t-octylacrylamide and N-undecylacrylamide.

[0100] The vinyl film-forming polymers can also result from the homopolymerization or copolymerization of monomers chosen from vinyl esters and styrene monomers. In particular, these monomers may be polymerized with acidic monomers and/or esters thereof and/or amides thereof, such as those mentioned above.

[0101] Examples of vinyl esters which may be mentioned are vinyl acetate, vinyl neodecanoate, vinyl pivalate, vinyl benzoate and vinyl t-butylbenzoate.

[0102] Styrene monomers which may be mentioned are styrene and α-methylstyrene.

[0103] It is possible to use any monomer known to those skilled in the art which falls within the categories of acrylic and vinyl monomers (including monomers modified with a silicone chain).

[0104] Among the film-forming polycondensates which may be mentioned are polyurethanes, polyesters, polyesteramides, polyamides, epoxy ester resins and polyureas.

[0105] The polyurethanes may be chosen from anionic, cationic, nonionic and amphoteric polyurethanes, polyurethane-acrylics, polyurethane-polyvinylpyrrolidones, polyester-polyurethanes, polyether-polyurethanes, polyureas and polyurea-polyurethanes, and mixtures thereof.

[0106] The polyesters may be obtained, in a known manner, by polycondensation of dicarboxylic acids with polyols, in particular diols.

[0107] The dicarboxylic acid may be aliphatic, alicyclic or aromatic. Examples of such acids which may be mentioned are: oxalic acid, malonic acid, dimethylmalonic acid, succinic acid, glutaric acid, adipic acid, pimelic acid, 2,2-dimethylglutaric acid, azelaic acid, suberic acid, sebacic acid, fumaric acid, maleic acid, itaconic acid, phthalic acid, dodecanedioic acid, 1,3-cyclohexanedicarboxylic acid, 1,4-cyclohexanedicarboxylic acid, isophthalic acid, terephthalic acid, 2,5-norboranedicarboxylic acid, diglycolic acid, thiodipropionic acid, 2,5-naphthalenedicarboxylic acid and 2,6-naphthalenedicarboxylic acid. These dicarboxylic acid monomers may be used alone or in combination with at least two dicarboxylic acid monomers. Among these monomers, the ones preferably chosen are phthalic acid, isophthalic acid and terephthalic acid.

[0108] The diol may be chosen from aliphatic, alicyclic and aromatic diols. The diol preferably used is one chosen from: ethylene glycol, diethylene glycol, triethylene glycol, 1,3-propanediol, cyclohexanedimethanol, 4-butanediol. Other polyols which may be used are glycerol, pentaerythritol, sorbitol and trimethylolpropane.

[0109] The polyesteramides may be obtained in a manner analogous to that of the polyesters, by polycondensation of diacids with diamines or amino alcohols. Diamines which may be used are ethylenediamine, hexamethylenediamine and meta- or para-phenylenediamine. An amino alcohol which may be used is monoethanolamine.

[0110] The polyester may also comprise at least one monomer bearing at least one group —SO_3M, with M representing a hydrogen atom, an ammonium ion NH_4^+ or a metal ion such as, for example, an Na^+, Li^+, K^+, Mg^{2+}, Ca^{2+}, Cu^{2+}, Fe^{2+} or Fe^{3+} ion. A difunctional aromatic monomer comprising such a group —SO_3M may be used in particular.

[0111] The aromatic nucleus of the difunctional aromatic monomer also bearing a group —SO_3M as described above may be chosen, for example, from benzene, naphthalene, anthracene, biphenyl, oxybiphenyl, sulfonylbiphenyl and methylenebiphenyl nuclei. As examples of difunctional aromatic monomers also bearing a group —SO_3M, mention may be made of: sulfoisophthalic acid, sulfoterephthalic acid, sulfophthalic acid, 4-sulfonaphthalene-2,7-dicarboxylic acid.

[0112] The copolymers preferably used are those based on isophthalate/sulfoisophthalate, and more particularly copolymers obtained by condensation of diethylene glycol, cyclohexanedimethanol, isophthalic acid and sulfoisophthalic acid. Such polymers are sold, for example, under the brand name Eastman AQ® by the company Eastman Chemical Products.

[0113] The polymers of natural origin, optionally modified, may be chosen from shellac resin, sandarac gum, dammar resins, elemi gums, copal resins and cellulose polymers, and mixtures thereof.

[0114] According to a first embodiment of the composition according to the invention, the second film-forming polymer may be present in the form of particles in an aqueous dispersion, which is generally known as a latex or pseudolatex. The techniques for preparing these dispersions are well known to those skilled in the art.

[0115] Aqueous dispersions of film-forming polymers which may be used are the acrylic dispersions sold under the names Neocryl XK-90°, Neocryl A-1070®, Neocryl A-1090®, Neocryl BT-62®, Neocryl A-1079® and Neocryl A-523® by the company Avecia-Neoresins, Dow Latex 432° by the company Dow Chemical, Daitosol 5000 AD® by the company Daito Kasey Kogyo; or the aqueous dispersions of polyurethane sold under the names Neorez R-981® and Neorez R-974® by the company Avecia-Neoresins, Avalure UR-405®, Avalure UR-410®, Avalure UR-425®, Avalure UR-450®, Sancure 875®, Sancure 861®, Sancure 878® and Sancure 2060® by the company Goodrich, Impranil 85® by the company Bayer and Aquamere H-1511® by the company Hydromer.

[0116] Aqueous dispersions of film-forming polymers which may also be used are the polymer dispersions resulting from the radical-mediated polymerization of one or more radical-mediated monomers within and/or partially at the surface of pre-existing particles of at least one polymer chosen from the group consisting of polyurethanes, polyureas, polyesters, polyesteramides and/or alkyds. These polymers are generally referred to as hybrid polymers.

[0117] According to a second embodiment of the composition according to the invention, the film-forming polymer can be a water-soluble polymer and is therefore present in the aqueous phase of the composition in dissolved form. Examples of water-soluble film-forming polymers which may be mentioned are:

[0118] proteins, for instance proteins of plant origin such as wheat proteins and soybean proteins; proteins of animal origin such as keratins, for example keratin hydrolysates and sulfonic keratins;

[0119] anionic, cationic, amphoteric or nonionic chitin or chitosan polymers;

[0120] polymers of celluloses such as hydroxyethylcellulose, hydroxypropylcellulose, methylcellulose, ethylhydroxyethylcellulose and carboxymethylcellulose, and quaternized cellulose derivatives;

[0121] acrylic polymers or copolymers, such as polyacrylates or polymethacrylates;

[0122] vinyl polymers, for instance polyvinylpyrrolidones, copolymers of methyl vinyl ether and of malic anhydride, the copolymer of vinyl acetate and of crotonic acid, copolymers of vinylpyrrolidone and of vinyl acetate; copolymers of vinylpyrrolidone and of caprolactam; polyvinyl alcohol;

[0123] polymers of natural origin, which are optionally modified, such as:

[0124] gum arabics, guar gum, xanthan derivatives, karaya gum;

[0125] alginates and carrageenans;

[0126] glycoaminoglycans, hyaluronic acid and derivatives thereof;

[0127] shellac resin, sandarac gum, dammar resins, elemi gums and copal resins;

[0128] deoxyribonucleic acid;

[0129] mucopolysaccharides such as hyaluronic acid and chondroitin sulfate, and mixtures thereof.

[0130] According to another embodiment of the composition according to the invention, the film-forming polymer may be present in a liquid fatty phase comprising organic solvents or oils such as those described above. For the purposes of the invention, the expression "liquid fatty phase" means a fatty phase which is liquid at room temperature (25° C.) and atmospheric pressure (760 mmHg, i.e. 10^5 Pa), composed of one or more fatty substances that are liquid at room temperature, also known as oils, which are generally mutually compatible.

[0131] The liquid fatty phase preferably comprises a volatile oil, optionally mixed with a non-volatile oil, the oils possibly being chosen from those mentioned above.

[0132] According to a third embodiment of the composition according to the invention, the film-forming polymer may be present in the form of surface-stabilized particles dispersed in the liquid fatty phase.

[0133] The dispersion of surface-stabilized polymer particles may be manufactured as disclosed in document EP-A-749 747.

[0134] The polymer particles are surface-stabilized by means of a stabilizer which may be a block polymer, a grafted polymer and/or a random polymer, alone or as a mixture.

[0135] Dispersions of film-forming polymer in the liquid fatty phase, in the presence of stabilizers, are disclosed in particular in documents EP-A-0 749 746, EP-A-0 923 928 and EP-A-0 930 060, the content of which is incorporated in the present patent application by reference.

[0136] The size of the particles of polymers dispersed either in the aqueous phase or in the liquid fatty phase can range from 5 nm to 600 nm and preferably from 20 nm to 300 nm.

[0137] According to a fourth embodiment of the composition according to the invention, the film-forming polymer may be dissolved in the liquid fatty phase, in which case the film-forming polymer is referred to as a liposoluble polymer.

[0138] Examples of liposoluble polymers that may be mentioned include copolymers of a vinyl ester (the vinyl group being directly linked to the oxygen atom of the ester group and the vinyl ester containing a linear or branched saturated hydrocarbon-based radical of 1 to 19 carbon atoms, linked to the carbonyl of the ester group) and of at least one other monomer which may be a vinyl ester (other than the vinyl ester already present), an α-olefin (containing from 8 to 28 carbon atoms), an alkyl vinyl ether (in which the alkyl group contains from 2 to 18 carbon atoms) or an allylic or methallylic ester (containing a linear or branched saturated hydrocarbon-based radical of 1 to 19 carbon atoms, linked to the carbonyl of the ester group).

[0139] These copolymers may be crosslinked with the aid of crosslinking agents, the aim of which is, which may be either of the vinyl type or of the allylic or methyallylic type, such as tetraallyloxyethane, divinylbenzene, divinyl octanedioate, divinyl dodecanedioate or divinyl octadecanedioate.

[0140] Examples of these copolymers that may be mentioned include the following copolymers: vinyl acetate/allyl stearate, vinyl acetate/vinyl laurate, vinyl acetate/vinyl stearate, vinyl acetate/octadecene, vinyl acetate/octadecyl vinyl ether, vinyl propionate/allyl laurate, vinyl propionate/vinyl laurate, vinyl stearate/1-octadecene, vinyl acetate/1-dodecene, vinyl stearate/ethyl vinyl ether, vinyl propionate/cetyl vinyl ether, vinyl stearate/allyl acetate, vinyl 2,2-dimethyloctanoate/vinyl laurate, allyl 2,2-dimethylpentanoate/vinyl laurate, vinyl dimethylpropionate/vinyl stearate, allyl dimethylpropionate/vinyl stearate, vinyl propionate/vinyl stearate, crosslinked with 0.2% divinylbenzene, vinyl dimethylpropionate/vinyl laurate, crosslinked with 0.2% divinylbenzene, vinyl acetate/octadecyl vinyl ether, crosslinked with 0.2% tetraallyloxyethane, vinyl acetate/allyl stearate, crosslinked with 0.2% divinylbenzene, vinyl acetate/1-octadecene crosslinked with 0.2% divinylbenzene, and allyl propionate/allyl stearate crosslinked with 0.2% divinylbenzene.

[0141] Liposoluble film-forming polymers which may also be mentioned include liposoluble homopolymers, and in particular those resulting from the homo-polymerization of vinyl esters containing from 9 to 22 carbon atoms or of alkyl acrylates or methacrylates, the alkyl radicals containing from 10 to 20 carbon atoms.

[0142] Such liposoluble homopolymers may be chosen from polyvinyl stearate, polyvinyl stearate crosslinked with divinylbenzene, diallyl ether or diallyl phthalate, polystearyl (meth)acrylate, polyvinyl laurate or polylauryl (meth)acrylate, these poly(meth)acrylates possibly being crosslinked with the aid of ethylene glycol dimethacrylate or tetraethylene glycol.

[0143] The liposoluble homopolymers and copolymers defined above are known and especially described in patent

application FR-A-2 232 303; they may have a weight-average molecular weight ranging from 2 000 to 500 000 and preferably from 4 000 to 200 000.

[0144] As liposoluble film-forming polymers which may be used in the invention, mention may also be made of polyalkylenes and in particular copolymers of C_2-C_{20} alkenes, such as polybutene, alkylcelluloses with a linear or branched, saturated or unsaturated C_1-C_8 alkyl radical, for instance ethylcellulose and propylcellulose, copolymers of vinylpyrrolidone (VP) and in particular copolymers of vinylpyrrolidone and of C_2 to C_{40} and better still C_3 to C_{20} alkene. As examples of VP copolymers which may be used in the invention, mention may be made of the copolymers of VP/vinyl acetate, VP/ethyl methacrylate, butylated polyvinylpyrrolidone (PVP), VP/ethyl methacrylate/methacrylic acid, VP/eicosene, VP/hexadecene, VP/triacontene, VP/styrene or VP/acrylic acid/lauryl methacrylate.

[0145] The composition according to the invention may comprise an auxiliary film-forming agent for promoting the formation of a film with the second film-forming polymer. Such a film-forming agent may be chosen from any compound known to those skilled in the art as being capable of fulfilling the desired function, and may be chosen in particular from plasticizers and coalescers.

[0146] The composition according to the invention may also comprise a dyestuff, for instance pulverulent dyestuffs, liposoluble dyes and water-soluble dyes. This dyestuff may be present in a content ranging from 0.01% to 30% by weight, relative to the total weight of the composition.

[0147] The pulverulent dyestuffs may be chosen from pigments and nacres.

[0148] The pigments may be white or colored, mineral and/or organic, and coated or uncoated. Among the mineral pigments which may be mentioned are titanium dioxide, optionally surface-treated, zirconium oxide, zinc oxide or cerium oxide, as well as iron oxide, chromium oxide, manganese violet, ultramarine blue, chromium hydrate and ferric blue. Among the organic pigments which may be mentioned are carbon black, pigments of D & C type, and lakes based on cochineal carmine or on barium, strontium, calcium or aluminum.

[0149] The nacres may be chosen from white nacreous pigments such as mica coated with titanium or with bismuth oxychloride, colored nacreous pigments such as titanium mica with iron oxides, titanium mica with, in particular, ferric blue or chromium oxide, titanium mica with an organic pigment of the above-mentioned type, and nacreous pigments based on bismuth oxychloride.

[0150] The liposoluble dyes are, for example, Sudan Red, D&C Red 17, D&C Green 6, β-carotene, soybean oil, Sudan Brown, D&C Yellow 11, D&C Violet 2, D&C Orange 5, quinoline yellow and annatto. The water-soluble dyes are, for example, beetroot juice and methylene blue.

[0151] The composition of the invention may also comprise any additive usually used in cosmetics, such as antioxidants, fillers, preserving agents, fragrances, neutralizing agents, thickeners, cosmetic or dermatological active agents such as, for example, emollients, moisturizers, vitamins and sunscreens, and mixtures thereof. These additives may be present in the composition in a content ranging from 0% to 20% (in particular from 0.01% to 20%) relative to the total weight of the composition and better still from 0.01% to 0.10% (if present).

[0152] Needless to say, a person skilled in the art will take care to select the optional additional additives 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 addition envisaged.

[0153] The composition according to the invention may be manufactured by the known processes generally used in cosmetics or dermatology.

[0154] The invention is illustrated in greater detail in the examples which follow.

EXAMPLE 1

[0155] A mascara having the composition below was prepared:

Carnauba wax		2.6 g
Beeswax		3.3 g
Paraffin wax		10.4 g
Hydrogenated jojoba oil		0.2 g
Hydrogenated palm oil		0.2 g
Polyamide resin with ester end groups, sold under the name "Uniclear ® 100" by the company Arizona Chemical		1 g
2-Amino-2-methyl-1,3-propanediol		0.8 g
Triethanolamine		2.4 g
Stearic acid		6.6 g
Hydroxyethylcellulose		0.8 g
Gum arabic		0.6 g
Ethyl acrylate/methyl methacrylate copolymer (80/20) as an aqueous dispersion containing 50% AM (Daitosol 5000 AD from Saito)		5 g AM
Black iron oxide		7 g
Preserving agents	qs	
Water	qs	100 g

[0156] This mascara is easy to apply and adheres well to the eyelashes during and after application; the eyelashes are made up quickly. It gives instantaneous loading of the eyelashes.

EXAMPLE 2

[0157] A mascara composition having the composition below was prepared:

Carnauba wax	4.6 g
Rice bran wax	2.1 g
Paraffin	2.2 g
Beeswax	8.2 g
Polyamide resin with ester end groups, sold under the name "Uniclear ® 100" by the company Arizona Chemical	1 g
Talc	1 g
Bentonite	5 g
Vinyl acetate/allyl stearate copolymer (65/35) (Mexomère PQ from Chimex)	6.5 g
Polyvinyl laurate (Mexomère PP from Chimex)	0.7 g
Sulfopolyester (AQ 55S from Eastman Chemical)	0.12 g
Isododecane	53.9 g
Propylene carbonate	1.6 g

-continued

Pigments		4.9 g
Preserving agents	qs	
Water	qs	100 g

[0158] This mascara adheres well to the eyelashes during and after application. It gives the eyelashes instantaneous loading and makes it possible to make them up quickly.

1. The use of an effective amount of a first polymer with a weight-average molecular mass of less than 100 000, comprising a) a polymer skeleton containing hydrocarbon-based repeating units containing at least one hetero atom, and optionally b) at least one pendent fatty chain and/or at least one terminal fatty chain, which may be functionalized, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units, in a make-up composition comprising a physiologically acceptable medium containing a fatty phase, as an agent for increasing the speed of achieving a make-up result on keratin materials and/or for increasing the adhesion to said keratin materials and/or for rapidly increasing the amount of make-up deposited on the keratin materials.

2-76. (canceled)

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